

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 711.—VOL. XIX.]

LONDON, SATURDAY, APRIL 7, 1849.

[PRICE 6D.]

Statuaries of Cornwall.—In the Vice-Warden's Court.

IN THE CONSOLIDATED CAUSES OF

GRAZE AND OTHERS v. FEGAN.

WHEREAS the VICE-WARDEN did, by an ORDER, or DECREE, made in the above-mentioned consolidated causes, and bearing date the 8th day of February last, Order and Decree that a SALE be made of the ORES and HALVANS, and (if necessary) the ENGINES, MACHINERY, and MATERIALS upon and belonging to WHEAL CURTIS MINE, in the parish of CROWAN, within the said Stannaries, under the direction of the Registrar of the Court, and that the proceeds of such sale should be applied by the said Registrar in the manner directed by the Order or Decree.

Notice is hereby given, that, pursuant to the said Order or Decree, and with the consent and approval of William Brougham, Esq., the Master charged with the winding-up of the affairs of the Wheal Curtis Copper Mining Company, a PUBLIC AUCTION will be HELD at WHEAL CURTIS MINE aforesaid, on Friday, the 13th day of April next, and following day, at Eleven o'clock in the forenoon of each day, for SELLING, either together or in lots, the under-mentioned.

MINING MACHINERY AND MATERIALS—VIZ.:

1	70-inch cylinder STEAM-ENGINE, complete, 10-feet stroke in cylinder, 8-feet in shaft, with two boilers, about 32 tons.
2	16-inch pumps
15	11-inch ditto
5	15-inch ditto
5	9-inch ditto
1	Top-doorpiece
2	13-inch working barrels
4	13-inch plunger case, stuffing-box, and gland
2	16-inch ditto plunger-pole
1	Staples and glands
1	12-inch working piece, & 2 8-inch do.
2	8-inch doorpieces
1	16-inch kneepieces
2	18-inch doorpieces and clack
1	12-inch top-doorpiece
4	Matching pieces
4	16-inch windlores
1	17-inch ditto
1	8-inch ditto
100	10-fathoms of ladders
2	Balance-boats
26	Rod-plates
1	Capstan and rope
2	Shears
4	Horse-whims & shaft tackle, complete
2	Wood air-pipes
2	Pieces 14-inch rods, 45 feet each
3	10-inch rods, 35 feet each
1	Wood cistern
1	Beam and axle of capstan
1	Cat-head capstan and rope, complete
1	Iron tube
2	Wood sheds, with floors
3	Hatches
1	Fathoms wood flat-rods, stands, &c.
1	Screw plates and taps
1	Pad rings
1	Glands and staples
1	Grinding stones, 17 sieves, a large set of blocks, 2 smiths' bellows, anvil, vice, 1 scales boxes and clacks, about 9 cwt. of lead ore, 2 cwt. powder, 5 1/2 cwt. weights, a quantity of old junk, wheelbarrows and handbarrows, new and old iron, new and old timber, iron kibbles, mandrill, a lot of carpenters', smiths', and miners' tools, COUNTING-HOUSE FURNITURE, together with a large quantity and great variety of other materials in general use in mines.

For viewing the same, application may be made to Mr. Morris, at the mine; Captain Evans, St. Agnes; and for further particulars (if by letter, pre-paid) to Messrs. Wright, Smith, and Shepherd, 15, Golden-square, London; or Mr. Roberts, Truro, solicitors; or to Mr. Stokes, solicitor, Truro.

Dated Registrar's Office, Truro, March 21, 1849.

VALUABLE MINING MATERIALS FOR SALE.

MR. GEORGE SEALY has received instructions to OFFER FOR SALE, BY AUCTION, on Monday, the 9th of April next, at GWINNEAR CONSOLS, in the parish of GWINNEAR, the whole of the

MINING MATERIALS

thereon—consisting of ONE 36-inch cylinder ENGINE, with boiler, 9 tons.

A balance-bo, capstan and shears, 13 9-feet 10-inch pumps, 1 7-feet ditto, 1 12-feet 2-inch working piece, 1 9-feet 9-inch ditto, 1 10-inch doorpiece, 1 9-inch ditto, 3 10-feet 10-inch windlores, 6 9-feet 6-inch pumps, 10 9-feet 5-inch ditto, 3 6-feet 5-inch ditto, 1 10-feet 8-inch ditto, 1 6-inch H-piece, 1 6-inch top-doorpiece, 1 6-inch windbore, 1 6-inch plunger-pole, pole-case, stuffing-box and gland, complete, 48 fathoms 9-inch rods, with strapping-plates and rod-poles, complete, 12 fathoms of 6-inch ditto, pump-rods, joints, plungs, pump-poles, engine-poles, staples and glands, and sundry other tools, with hammers, hammers, with shaft tackle, pulleys and sheaves, 1 1/2-inch and 4-inch flat chains, scales and stand, brass weights, from 56 lbs. to 4 drachm, formerly the standard weights of the Corporation of Marasian, a 42-inch smiths' bellows, anvil, vice, mandrill, smiths' horse, smiths' and miners' tools, screw stock and screw tools, a quantity of useful planks and other timber, sheds, barrows, keives, and a variety of other mining materials.

Gwinnear Consols is situated three miles from the port of Hayle.

The sale to commence at Eleven o'clock.—The whole to be sold without reserve.

Marasian, March 27, 1849.

CARMARTHENSHIRE.—A desirable FREEHOLD FARM, with STONE COAL and CULM SEAM, RICH IRON ORE, &c., near the Canal to Pembrey New Floating Harbour, and within a short distance of the South Wales Railway.

TO BE SOLD, BY AUCTION, on Thursday, the 3d of May, 1849, at the FALCON HOTEL, in the town of LLANELLY, at Three P.M. precisely, by order of a mortgagee, with power of sale, and subject to conditions, to be then produced, all that FARM, LANDS, and PREMISES, called

BRYNDIAS.

with an excellent DWELLING-HOUSE and OUTBUILDINGS, containing about 42 acres of land, and possessing a right of common on Pembrey Mountain and Plinged Marsh; also the COAL and CULM and IRON MINE under the same, which is considered to be of the best quality, and may be shipped cheaper than any coal in the Vale of Gwendraeth, being about 3 miles only distant from the shipping place; the whole may be worked with a small capital. David Lloyd, the tenant of the farm, will show the premises.

For particulars apply to Messrs. Barker and Bowker, No. 1, Gray's Inn-square, London; Mr. Watkins, solicitor, Foregate-street, Worcester; or to Mr. B. Jones, solicitor, Llanelli, Carmarthenshire (post-paid), where a plan of the estate may be seen.

GLAMORGANSHIRE—COAL, IRONSTONE, AND FIRE-CLAY TO BE LET.

TO BE LET, FOR A TERM, the whole of the valuable VEINS of COAL, IRONSTONE, and FIRE-CLAY, lying under the

TRECASTLE ESTATE,

Situate near Lanhydrock, Glamorganshire, about 10 miles from Cardiff, and about 16 from Port Cawl and Port Talbot.

Nearly 300 acres of the estate contain all the principal VEINS of COAL and IRONSTONE due to the lower series of measures in the Great Mineral Basin of South Wales; and as the property is bounded for some distance on the north by the South Wales Railway, great facilities will shortly be afforded for communicating with the different ports on the coast. Several of the veins of coal having been, many years ago, partially worked on the estate, near the outcrop, for the supply of the neighbourhood, are known to be of a highly bituminous quality. The large coal is well adapted for exportation and domestic use, and the small for general manufacturing purposes. It produces coke of fine quality, calculated either for locomotive engines or iron smelting.

The ironstone is in great abundance, and the estate possesses very eligible sites for the erection of blast-furnaces for smelting the same. There is also a very large supply of TIMBER and PITWOOD growing on the property—any quantity of which may be had at a valuation; and there is also a constant supply of water.

For further particulars, and to treat for the same, apply to Mr. Lewis, solicitor, Bridgend, Glamorgan.

COLLIERIES AND ROYALTIES TO BE LET OR SOLD, IN FEE.—An exceedingly eligible opportunity is offered to any party desirous of EMBARKING IN THE COAL TRADE.

This property consists of about hundred acres of unworked coal of good quality, with two pits in work, and one partly sunk—the coal has thus been satisfactorily proved. The leases are on a low royalty, and one of them extending over about four-fifths of the whole, containing a sum of purchasing in fee for the royalty, for a moderate sum, which, in case of continued working, would afford a great saving.

There is a good demand for coal at Bristol, and various other places adjoining the Bristol and Birmingham Railway, which passes through this property, and on which the coals are now carried; and it could be clearly shown to any person who understands coal mining, that a large profit might be made by a judicious expenditure.

The coals realize at the pits a much higher price than coal sell at in the north of England, or most other parts of the country, and the price in this vicinity varies but little.

The dock dues at Bristol have lately been greatly reduced, so that it is now one of the largest ports in the kingdom, and affords a medium for exporting large quantities of coal in vessels requiring return cargoes, for which purpose it is much in demand.

Any person inclined to purchase a share in the concern, or to become the managing partner, will be treated with.

For particulars apply to J. P. Sturge and Son, land agents and surveyors, Bristol.

COLLIERY TO BE LET, SWANSEA.—TO BE LET, for such a term of years as may be agreed upon, the COAL lying under an ESTATE of about TWO HUNDRED ACRES, within 4 miles of the port of SWANSEA. An engine has been erected, and one seam of coal has already been won. The small is suitable for general manufacturing purposes, and the large is most excellent as steam-packet coal. The pit is situated within a few yards of the Swansea Canal, to which the communication is already made.

For particulars apply to Mr. Phillip Richard, Gorse Colliery, near Swansea.

RIVER FRONTRAGE, SWANSEA.—TO BE LET, for such a term of years as may be agreed upon, SEVERAL ACRES OF GROUND, lying along the navigable part of the SWANSEA RIVER, in the immediate vicinity of the largest copper works, and suitable for smelting, or other manufacturing establishments. The land is close to the South Wales Railway, and possesses great facilities for delivery of coal by this line, as well as by other modes of transit.

Apply to Mr. B. Daniel, surveyor, No. 8, Garden-street, Swansea.

JAMES BOYDELL, LAND, MINE, AND MACHINERY

VALUER, AND AGENT.

No. 54, THREADNEEDLE-STREET, LONDON,

Has to DISPOSE OF several valuable PATENT RIGHTS, some of which have been profitably worked.

A FREESTONE QUARRY, in North Wales, from which, on account of its quality, the small cost of getting and working it, and its proximity to the sea, London may be supplied lower prices than those now ruling for much inferior stone, and a large profit left to the proprietor.

An IRONSTONE MINE, likewise in North Wales, worked open cast, close to a shipping port, and now in profitable work.

The LEASE of a very celebrated FOUNDRY and ENGINEERING ESTABLISHMENT, on the River Dee, complete with fixtures, machinery and tools, in working order, and ready for any party to embark at once on building first-class steam-vessels, and marine and locomotive engines.

The above will be found worthy the attention of any parties desiring to invest money in a profitable business, as they will be disposed of upon terms which will ensure an unusual return to the purchasers of them.

J. BOYDELL has also his DISPOSAL a RESIDENCE and LANDED PROPERTY in SHROPSHIRE, which is in a good neighbourhood, and which (a large portion of the land adjoining the house being of most picturesque character, and well timbered, with a streamlet running through it) might be made a country residence for any nobleman or gentleman, such as but few in the kingdom would bear comparison with.

Particulars of the above may be had, upon application, at 54, Threadneedle-street.

CORNWALL—TYWARTHIALE MINES.

IMPORTANT AND VALUABLE COPPER MINES TO BE LET, BY PRIVATE CONTRACT, comprising the extensive SETTS formerly KNOWN AS

UNITED HILLS, WHEAL CHARLES, and WHEAL FANCY,

belonging to the Duchy of Cornwall, in the parish of SAINT AGNES.—These mines having been surrendered to the Duchy by the late lessees, during the extreme pressure of the latter part of the year 1847, have since been placed in a good working order, and are yielding large and increasing returns. They are now to be leased, at a moderate rate of dues, for a term of 21 years.

An arrangement can be made for putting the lessees of the Tywarthiale Mines in possession of the adjoining sets of Wheal Sparrow, West Wheal Sparrow, Bassett's United Hills, Wheal Clarence, and Wheal Lydia, the property of the representatives of the late John Bassett, Esq.

Proposals will be received at the Duchy of Cornwall Office, Somerset House; and any further information may be obtained by application there, or to R. Taylor, Esq., Falmouth. Duchy of Cornwall, Somerset House, Feb. 20, 1849.

(DAY OF SALE POSTPONED.)

EXTENSIVE IRON-WORKS FOR SALE—NEW FIELD OF BLACK-BAND IRON-STONE.—USEFUL PRICE REDUCED.

TO BE SOLD, BY PUBLIC ROUP, within the Royal Exchange Sale Rooms, GLASGOW, upon Wednesday, the 25th day of April current (instead of the 11th, as formerly advertised)—at One o'clock afternoon (if not previously disposed of by private bargain),

THE BLAIR IRON-WORKS,

belonging to the Ayrshire Iron Company, situated in the parish of Dalry and of Ayre.—These works, which have been recently erected at an immense cost, consist of

TWO BLOWING ENGINES, FIVE BLAST-FURNACES, WORKMEN'S HOUSES, STEAM-ENGINES FOR working the minerals, together with UTENSILS at the pits, furnaces, &c., all in working order, and capable of producing upwards of 35,000 tons of iron per annum.

One of the blowing engines, high-pressure, estimated at 90-horse power, was erected in 1841—the other, a condensing engine, was erected in 1847, and is estimated at 200-horse power, the latter being capable of blowing five furnaces, and both fitted up in the most substantial manner, and at present in good working condition.

Two furnaces have been erected with the greatest care, and are fitted with air-heating apparatus of the most approved construction. The make of each furnace has generally averaged upwards of 150 tons of iron per week, and some of them have produced 180.—There are, besides the manager's house and store buildings, 187 workmen's houses, in a habitable state, attached to the furnaces and pits, and there are 20 partly built, which could be finished at a small additional outlay. There are also a new foundry, Wright's shop, fire-brick work, smithy, &c.

The MINERAL FIELDS consist of COAL, IRONSTONE, LIMESTONE, and FIRE-CLAY, held in lease by the company at moderate fixed rents and royalties, all situated within easy distances of the furnaces, and for the most part have the advantage of railway communication.

The COAL FIELDS consist of several hundred acres, of which only a small portion has been wrought; several pits, fitted with good engines and machinery, are sunk to the coal, and partly in operation.

The IRONSTONE consists of the well-known BLACK-BAND, yielding about 3000 tons of calcined stone per acre, and it has been estimated that there are 300 acres or thereby, still to work, besides about 200 acres, which from borings just completed, it is ascertained also exists, as well as in adjoining lands, the minerals in which are still undiscovered. There is also a large extent of CLAY-BAND IRONSTONE, hitherto little wrought, but capable of yielding a large output. There are 15 pits, with excellent steam-engines, some of them in present operation, and others ready to resume working.

The LIMESTONE QUARRY is worked by open cast, and is connected with the works by railway.

The FIRE-CLAY is abundant, of excellent quality, and cheaply produced.

There is a large stock of ironstone on the ground, which can be got at a valuation, so that the works can be put into immediate operation, and having a connection with the Glasgow and Ayr and Ardrosson Railways, along which the produce has the privilege of conveyance at low rates, the present affords an excellent opportunity for parties entering into the iron trade.

MALLEABLE IRON-WORKS.

Considerable progress has been made in the erection of extensive malleable works, immediately adjoining the pig-iron works, which will be sold either together or separately.

Further particulars will be given on application to W. D. Starling, Esq., 13, Change-lane, Brixton-lane, London; or to Mr. Brown, 36, or to Mr. Watson, 32, St. Vincent-place, Glasgow.

N.B.—The purchaser of these works has an opportunity of at the same time acquiring the mansion-house and lands of Pitcon, immediately adjoining.

Glasgow, April 4, 1849.

(DAY OF SALE POSTPONED.)

VALUABLE ESTATE AND MINERAL FIELD IN AYRSHIRE FOR SALE.

TO BE SOLD, BY PUBLIC ROUP, within the Royal Exchange Sale Rooms, Queen-street, Glasgow, upon Wednesday, the 25th day of April current (instead of the 11th day of May, as formerly advertised)—at One o'clock afternoon, unless previously disposed of by private bargain, all and whole.

LANDS AND ESTATE OF PITCON,

Extending to about 216 acres, imperial measure, as more particularly described in former advertisements; together with the MANSION-HOUSE, and OFFICES and GARDEN thereto belonging; and the whole MINERALS and METALS in the said Lands, excepting these 8 acres, or thereby, Scotch measure, now belonging to the Glengarnock Iron Company, of their present working name of Ironstone in the said Lands; and also excepting the Pitcon Railway and Branches, in so far as the same are within, and pass through, the said lands.

The MANSION-HOUSE is in good order and repair, and has attached to it a set of suitable and commodious offices, with walled garden, shrubbery, and pleasure ground; and the whole are well enclosed.

The LANDS, let under lease, extend to about 140 acres Scotch or thereby, and are at present held by a respectable tenant, at a surface rent of 490/- sterling per annum. The farm steading is in good order and repair.

The MINERALS, comprising the most valuable description of ironstone, extend to about 140 acres still unworked, and are held upon lease by the Ayrshire Iron Company. Upon a moderate calculation, the black-band yields about 3000 tons calcined ironstone to the imperial acre. There are, besides, several seams of Coal and other Minerals in the Lands.

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CORNISH STEAM-ENGINES.

The number of pumping-engines reported for the month of Feb. is 24—the quantity of coals consumed being 3728 tons, lifting, in the aggregate, 25,000,000 tons of water 10 fathoms high—the average duty of the whole is, therefore, 53,000,000 lbs. lifted 1 foot high by the consumption of a bushel of coal.—The following have exceeded the average:

Mines.	Engines.	Length of stroke	Load in pounds	Load per sq. inch	Consump. of coal	Million lbs. lifted by consumption of 1 bush. coal.	Lifted 1 foot by 1 cwt. of coal.
W. Tremayne	26-inch	9' 0	26,123	19.9	12' 6	2110	55' 4
Great Work	Leeds's 60-in.	9' 0	41,820	11.5	10' 1	2783	53' 8
East W. Croft	Frevenson's 80	10' 33	82,333	12' 2	6' 5	3665	53' 0
Carn Bras.	76-inch	8' 23	84,657	14' 7	4' 9	2530	56' 1
Poldice	45-inch	10' 0	77,545	9' 5	10' 6	5360	44' 1
South Frances	75-inch	11' 0	33,224	6' 5	7' 0	2010	66' 1
United Mines	Taylor's 85-in.	11' 0	98,288	15' 7	7' 2	4494	79' 3
Ditton	Cardova's 90-in.	9' 0	100,682	13' 8	8' 5	5770	59' 4
Ditton	Eldon's 30-inch	9' 0	13,631	16' 0	7' 9	616	66' 3
Ditton	Loam's 85-inch	10' 0	87,947	11' 6	8' 7	5332	54' 8
Ditton	Hocking's 85-in.	10' 0	97,814	14' 4	8' 3	5902	58' 9
Tywarnhayle	Gardiner's 80-in.	10' 0	71,200	11' 3	7' 2	3696	56' 5
East Wh. Rose	Michell's 70-in.	10' 0	67,661	13' 8	4' 0	1748	69' 3
							83

[Abstract from Browne's *Cornish Engine Reporter*, from Feb. 20 to March 20, 1849.]

PUMPING-ENGINES.

Number reported	24
Average load per square inch on the piston, in lbs.	12.9
Average number of strokes per minute	5.9
Gallons of water drawn per minute	5911
Average duty of 18 engines—being million lbs. lifted 1 foot high, by the consumption of 1 cwt. of coal	63.0
Actual horse-power employed per minute	1038.0
Average consumption of coals per horse-power per hour, in lbs.	4.1

ROTARY-ENGINES—WHEELS.

Number reported	19
Number of kibbles drawn	68,160
Average depth of drawing, in fathoms	126.0
Average number of horse-whim kibbles drawn the average depth, by consuming 1 cwt. of coals	53.1
Average duty of 14 engines, as above	16.5

STAMPS.

Number reported	1
Average number of strokes per minute	14.0
Average duty of 4 engines, as above	3.4
Actual horse-power employed per minute	3.4

PUMPING-ENGINES DOING HIGHEST DUTY.

Fowey Consols	50-inch single	Millions	101.2
Par Consols	50-inch single	Millions	95.9
Great Folgoath	50-inch single	Millions	88.0
Par Consols	72 and 36-inch Sims's combined	Millions	87.7
Callington	50-inch single	Millions	74.2
West Fowey Consols	60-inch single	Millions	72.3

WHIN-ENGINES.

Par Consols	24 & 13-inch Sims's combined	Millions	29.0
Fowey Consols	22-inch double	Millions	28.6
Par Consols	22-inch double	Millions	28.6
Par Consols	24-inch single	Millions	19.5

STAMPING-ENGINES.

South Cadron	26-inch single	Millions	44.5
Tamar Mines	30-inch single	Millions	41.9
Great Folgoath	24-inch double	Millions	31.6

NEW PATENTS.

A grant of an extension of a patent for the term of four years, from the 4th inst., of an invention for a certain improvement or certain improvements in the making and manufacturing of axletrees for carriages, and other cylindrical and conical shafts, to C. Geach and T. Walker, the assignees of J. Hardy, the original inventor.

A. V. Newton, Chancery-lane, for improvements in separating and assorting solid materials or substances of different specific gravities.

S. A. Carpenter, Birmingham, Warwick, manufacturer, for a certain improvement in or substitute for buckles.

A. Woollett, Liverpool, artist, for improvements in gun carriages.

W. Parry, Esq., Plymouth, for improvements in shooting horses, and in horse shoes.

H. Dumington, Nottingham, manufacturer, for improvements in the manufacture of laced fabrics, and in the making of gloves and handbags.

J. G. Wilson, engineer, Chelsea, and W. Fiddling, Elizabeth-street, Pimlico, for improvements in obtaining perfect combustion, and in apparatus relating thereto, the same being applicable to every description of furnace and fire-place, as also to other purposes where inflammable matter or material is made use of.

W. McBride, Jun., of Sligo, Ireland, but now of Havre, France, merchant, for improvements in the apparatus and process for converting salt water into fresh water, and in oxygenating water.

ARTICLES OF UTILITY AND USEFULNESS.

H. and J. Foster, Liverpool, telegraphic ship signal lantern.

W. Bennett, Percival-street, Goswell-road, shaving brush.

J. Whitehead, Preston, reciprocating spiral motor.

B. Jones, Carr-street, Ipswich, improved fire-escape.

B. Nicoll, Regent's-circus, and Lombard-street, jackets for rowing, cricketing, &c.

F. B. Oerton, Walmsley, belt for horses.

B. Garrett, King-street, Whitehall, double piston cornopean.—*Mechanics' Magazine*.

BANWEN IRON COMPANY.—At the Kingston Assizes, on Saturday last, an action was brought by Messrs. Robinson and Co., against the company, to recover the sum of 6007, and upwards, for work and labour done, goods sold and delivered, and money paid on account stated. The defendants pleaded never indebted, payment, and that it was a joint-stock company, and, therefore, that the acts of two or three of the directors could not bind the company, unless they had been duly authorised by the company, which, it was pleaded, had not been the case in this instance, and, further, a set-off. It appeared that the plaintiffs are engineers at Pimlico, having succeeded the well-known firm of Bramah and Co., and that the defendants had iron works in Glamorganshire, and offices in Threadneedle-street, in the City of London, under the title of the "Banwen Iron Company." The company was completely registered in October, 1846. It would be shown that the orders which had been given to the plaintiffs had been received from a Dr. Barnett, a Mr. Browne, and a Mr. Harris, the two former being directors, and the last the secretary. In the month of February, 1847, these gentlemen entered into an agreement with the plaintiffs for the supply of a steam-engine and fittings, and the money due under this agreement had been duly paid. The plaintiffs afterwards supplied other machinery, consisting of two boilers and the materials connected with them. After the trial had occupied some hours, it turned out that the counsel for the plaintiffs were unable to prove that the sanction of the board of directors had been given to the two directors in question to pledge the credit of the company in this particular instance, in any other way than by the production of a letter from Harris, the secretary.—Mr. Baron Parkes said, that unless evidence were given either by a particular provision in the deed of the company, that a certain person, or certain persons were appointed, and duly authorised to pledge the credit of the company, or of the liability of the directors as a body, it was quite clear, upon the ruling of the Court of Exchequer in these cases, that neither the company as a company, nor the directors as a board, except where the board were proved to have acted in the particular instance, could be held liable for any debt incurred by one or two of their body.—Mr. Serl Channell said he was not furnished with the proofs which his lordship required.—Plaintiffs nonsuited accordingly.

OUR ALKALI WORKS.—Considerable alarm exists among the soda manufacturers of this district, at a reported intention of the Government of Prussia to increase the duty upon crystals of soda admitted into that country, from 15s. the present duty, to 3d. per ton. Within these few years, a large and important trade has risen between this country, especially this district, and the continent, for soda-ash and crystals of soda; and the manufacturers of these articles on the Tyne have invested large sums in increasing their establishments to supply this increased demand, calculating, no doubt, that the principles of free trade would not be departed from. If they should unhappily be mistaken, and continental nations should return to a restrictive system of trade, of which this appears to be a symptom, they, and all those dependent upon this particular branch of trade, will be grievously injured. The cost of delivering crystals of soda in Prussia, including the present duty, we understand is about 2d. per ton, to which extent the Prussian manufacturer is at present protected. If the duty be increased to 3d. per ton, his protection will be 4d. 5s. per ton; and, as the price of crystals of soda, free-on-board in the Tyne, is not more than 6d. per ton, it will operate as an entire prohibition. We, however, think it improbable that our Government can quietly allow this additional duty to be imposed; and we are informed that the soda makers have already communicated with some of the Ministers on the subject.—*Newcastle Chronicle*.

ANOTHER PERMANENT CURE OF A NERVOUS HEADACHE AND GIDDINESS IN THE HEAD BY HOLLOWAY'S PILLS.—Mr. W. Smith, of No. 5, Little Thomas-street, Lambeth, suffered for many years with a nervous headache and giddiness in the head, which so prostrated his strength, that he had very little hope of a recovery. His disorders completely baffled the skill of several eminent doctors, who, it appears, mistook his complaints for an affection of the spine, and he got worse under their treatment. In despair, and as a last resource, he commenced taking Holloway's pills, which have had the effect of restoring him to perfect health, and the prospect of a hale and hearty old age. Sold by all druggists, and at Professor Holloway's establishment, 244, Strand, London.

COAL MARKET, LONDON.

PRICE OF COALS FOR TON AT THE CLOSE OF THE MARKET.

MONDAY.—Budd's West Hartley 14 4—Carr's Harley 14 9—New Tanfield 13—Tandfield Moor 13 6—Townley 13 6—Wylam 13 6—Wall's End Brown's Gas 12 3—Framwells 15—Hotspur 14—Northumberland 14—Percy Bensham 13 9—Eddon Main 16 6—Brady's Hutton 16 6—Bell 15 3—Hawes 17 3—Lambton 16 9—Stewart's 15 6—Caradoc 16—Casop 16—Heugh Hall 15—Whitworth 13 3—Denison 14 9—Tees 17—Cowpen Hartley 14 9—Anstruther 26—Hartley 13 9—Nixon's Merthyr 20 6—Slidley's Hayville 14 6—Ships at market, 67; sold, 37.

WEDNESDAY.—Carr's Hartley 14 9—Hobwell Main 14 6—New Tanfield 13—Wylam 13 6—Wall's End Hotspur 14 6—Northumberland 14 6—Eddon Main 16 6—Lambton 15—Hotspur 17 3—Bell 15 6—Heugh Hall 17 6—Lambton 17 3—Russell's Hutton 17 3—Stewart's 17 6—Caradoc 16 6—Casop 16 6—Hartlepools 17 6—Kelloe 16 6—Cowpen Hartley 14 9—Nixon's Merthyr 20 6—Ships at market, 39; sold, 32.

THE GOLD DISTRICT OF CALIFORNIA.

Advices to the 25th December last have reached here from California, and while from some of them the same marvellous tales as have formerly reached us are only to be gleaned, others carry on them more of the stamp of truth and probability. A Mr. Mellus, who is stated to have arrived at Boston from San Francisco, confirms even the most extravagant accounts, and estimates the gatherings for the first year at \$36,000,000; he is said to have brought a piece weighing 6 ozs., and tells of a lump found in October last, near the River Stanislaus, by an Indian, named Truxillo, weighing 12 lbs. avoirdupois. How far he is to be credited is yet to be known. Other statements are more moderate: from the generality of them we learn that fortunes are not to be made in a day or a season; the average earnings may be said to be about \$10 to \$12 per day, and this with hard labour, continually covered with water and sand, which brings on ague and fever. All the accounts agree in a barbarous murder having been committed on 10th November last, on a Mr. Pomeroy and a respectable companion, who had collected a quantity of gold. They had encamped in the night, on their journey to the Pueblo Valley, when their camp was attacked in the night, and robbed, supposed by two men who have fled, named Lynch and Jones, of whom numbers are in hot pursuit, and if found guilty when tried by Lynch law, would, doubtless, be hung. Three men also were hung at San Jose for murder, after a trial by the alcade and a jury. There does appear, however, a brighter side of the picture. A party, to the number of 153, have signed and agreed to a code of bye-laws for the protection of the general property; they meet every Sunday morning to the number of 120 to 130, hear the rules read by the secretary, who inquires if any one knows of an infringement since the previous Sunday; and in eight months (except on one occasion) there had been no offence which merited more than a small fine or reprimand from the president. On the occasion alluded to, a covetous fellow was caught hiding part of the general stock of gold belonging to his company of nine. They immediately held a meeting, paid him his share (about \$3000), and sent him about his business, as his fate on the following Sunday would have been expatriation. One of the disbanded volunteers in Col. Fremont's regiment was taken prisoner by the Indians, and kept in captivity nine months, when, on the discovery that he was a Freemason, they gave him his liberty, many of the Indians being members of that fraternity. He had collected much gold, estimates the produce equal to the most sanguine statements made, avails all his acquaintance to go, and is now recruiting his strength at San Francisco, previous to another campaign in the season. With all this the quantity of gold arrived is small. A few trifling sums had been received at Boston, and \$12,000 arrived from Chagres, by the steamer *Isabella*. Captain Stout states, that the amount on board the United States' ship, *Lexington*, is from \$300,000 to \$400,000, and that it will be carried to Valparaiso to be melted into bars, before being sent to America.

Other letters, of a similar date, state that emigration had been pouring into the diggings from all quarters; and the writer thinks that at least 100,000 will have arrived by August next. The cold weather had, for a time, checked the emigration to the mines; but almost every one not engaged in gold digging was preparing to go to the mines in the spring. The writer says that the present is the coldest winter known in California for 50 years. Provisions were very plentiful, and were receding in price.

The following letter from California, which arrived by the *Dee* steamer, although of an earlier date than the last advices from New York, will prove of particular interest to English readers, as it is written by an officer in the Hudson's Bay Company's service, who, having visited San Francisco, on the business of the company, has transmitted similar accounts to the directors in London. It will be observed that as far as his personal observations enable him to form an opinion, he confirms the general statements that have hitherto been received:—

"SAN FRANCISCO, Dec. 21.—I have the pleasure to acquaint you that I returned here a few days ago, after an absence of six weeks, during which time I visited the gold mines with the view of affording information

Bank parlour, and get them to withdraw the notices of bankruptcy, what could they obtain for their property?

Mr. SOUTANCE said, Mr. Lord's proceedings alone had induced the Bank to take these steps. The Bank had always shown themselves lenient, and willing to grant the company every indulgence; but Mr. Lord had impugned their mortgage. In order to get rid of this difficulty, they made short work by giving a notice to force the court into bankruptcy—they were obliged, to secure themselves, to use this summary proceeding. If they made the court bankrupt, it was the only way they had to bring Mr. Lord's vexatious proceedings to an issue. The Chancellor had dismissed Mr. Lord's petition; notwithstanding this, Mr. Lord had appealed to the House of Lords. In the ordinary course, it would have taken two years before this appeal could be heard. The Bank, in order to bring it to a point with Mr. Lord, had applied to the House of Lords; and, although such a thing was unusual, they had consented to hear the other appeal, and hear this, on the 23d of April, though, he dare say, Mr. Lord would be glad if it had been in suspense for the two years. The Bank had twice served notice of bankruptcy on them, but had subsequently withdrawn them; the Bank were in communication with the debtors and share-holders, and, if the cause was lost, Mr. Lord would have to pay the costs.

Mr. Lord said, the Bank had advertised the property for sale for six months. They had offers for the Welsh property from Messrs. Williams, Foster, and Co.; but for this injunction the company would have had their property sold. If defeated this time, he could file another bill in Chancery.

Mr. SOUTANCE said, he might file as many bills as he pleased; but he would find they were very expensive experiments.

Mr. GILBERTSON said, there were many of the shareholders of Mr. Lord's opinion; they must remember that Vice-Chancellor Knight Bruce had given a decision in Mr. Lord's favour—in fact, Mr. Lord was appealing for a reversal of the Chancellor's judgment on the proceedings of another court. They must remember that both shareholders and debenture holders were standing on tender ground; they were all too weak to stand alone; they must, therefore, unite and combine together. If such was done, he was convinced there was a fortune to be made. He proposed that a committee be formed, to have power to act with all parties—Bank, trade creditors, and all sorts of claims—in fact, to take such steps as they think necessary to resuscitate the company, and that they be empowered to make such arrangements with Mr. Lord, that he may desist from his suit.

Mr. Lord, after what had been said by Mr. Gilbertson, did not wish to trespass further on their notice. He was averse to the company being forced into the *Gazette*, and he would make way for any just and equitable arrangement.

The report was then put from the chair, and carried.

The shareholders then proceeded to the election of a Court of Assistants for the year ensuing. According to the rules of the company, an hour is to take place between the balloting and declaration of the election. During this period, a desultory conversation took place, when it was agreed that the whole of the shareholders, with the exception of the governor and deputy-governor, should adjourn and elect a chairman, in order to form a committee, as suggested by Mr. Gilbertson.—Mr. Shaw was voted in the chair.

Mr. GILBERTSON then moved, "That a committee be appointed, to take such steps as may be necessary for the resuscitation of the company, and with full power to adjust all claims, and take such other proceedings as may be requisite for promoting that object."—This was seconded by Mr. FOWLER, and carried unanimously.

The following five gentlemen were elected to serve on the committee—Messrs. Fowler, Carden, Gilbertson, Shaw, and Paul, jun., three to constitute a quorum.

The Govoxians then announced that the gentlemen forming the Court of Assistants were re-elected for the year ensuing—Joseph De Vitré, Esq., being elected in the room of Robert Warren, Esq., deceased.

The Court of Assistants were then sworn in, and the meeting separated. [Printed lists, with the names of a new Court of Assistants, to be voted for, were circulated in the room, in which Messrs. Cotton and Heath were severally named as the governor and deputy-governor; but the general feeling of the shareholders, after Mr. Gilbertson's speech, appearing to be in favour of no change taking place until the report of the labours of the new committee had been received, all opposition was consequently withdrawn, and the question of a new court was not mooted.]

PENNANT AND CRAIGWEN CONSOLIDATED MINING COMPANY.

A special general meeting of this company was held at the offices, Threadneedle-street, on Tuesday last, to make a call, and for other purposes. It was most numerously attended.

ROBERT OWEN ALAND, Esq., in the chair.

Mr. MANSELL (the purser) read the advertisement convening the meeting, and the following report:—

By the circular wh ich was issued by the directors, on the 6th of June last, the shareholders were put in possession of the particulars of the amalgamation which the board, assisted by Mr. Charles Smith, were enabled to effect between the Pennant Company and that of Craigwen; by which, it will be remembered, the Pennant shareholders were to provide working capital to the extent of 16000, after payment of all other sums, before the Craigwen shareholders could be called on for money. The directors have now the satisfaction of stating to the shareholders that they have obtained a very considerable reduction in the terms; and the arrangement now entered into provisionally, and waiting your sanction, is simply to provide the sum of 10000, prompt, and 6000, at six months, for payment to the lord of the manor, on account of the Craigwen shareholders; and that these and all other sums are to be produced by a call or calls, *paripassu*, on the 8000 shares of the amalgamated company, instead of being borne by the 4000 shares of Pennant only. This is a clear gain to the Pennant shareholders of 16000, besides the difference between the credit in hand and the 10000, to be paid, which sum of 10000, the Pennant proprietors, by the original agreement, were to have paid themselves forthwith. The Craigwen shareholders, on their part, have an equal gain or profit by the reduction which the directors have effected in the purchase money of that sum, which still remained unpaid by them to the lord of the manor, and prevented the completion of the lease, and which, in fact, has been the main cause of the great delay which has taken place in bringing this most valuable and important sum into full and efficient working. Now, however, all matters are adjusted. The necessary machinery has, consequently, been ordered from Mr. J. Taylor, of the Adelphi, who is well known in the mining world as an eminent mechanist and miner; and altogether, therefore, the shareholders may shortly look forward to a decided amelioration of their position. Abundance of ore is in sight, ready to be raised, to the extent, it is estimated by some, of 10,000, and offers have been made to raise and dress it ready for market, after the machinery is erected, for 60. 10s. per ton, with an undertaking to produce a given quantity per month, for six months at a time; which is of itself a good guarantee of the quantity and value of the metal in view. Nothing, in fact, is now wanting to place the shareholders in a lucrative position, than their own energetic support of the board; and the directors, from experience, feel assured of having a continuance of their confidence. They consequently recommend that a call of 8s. per part, or share, be made, payable in four instalments of 2s. each, one prompt, and the other three at intervals of not less than two months. The directors do not contemplate that this sum will be required, but only ask for the power of calling for it if needed; and it will be a disappointment to them if they are not enabled, within a few months after the machinery is erected, to declare a dividend of some consideration.

The apparent delay which has occurred with respect to bringing the umber to market has arisen from a misunderstanding with the lord of the manor, as to the power of the company, under the Peasant lease, to remove other than mineral; but this has been set at rest by a small increase in the sleeping rent, so as to include all substances whatever, excepting lime. The accounts have been examined by the auditor, Mr. Charles Smith, assisted by Mr. Robert Doubleday, a principal shareholder. The balance-sheet, approved by him, is on the table, by which it will be seen that there is a credit in favour of the company of £350. 12s. 4d., in addition to calls in default to the amount of 355. 10s.—making together 791. 2s. 4d. It has been the desire of some proprietors that the shares in default should be forfeited, but the directors consider that it would be desirable to leave this point to the discretion of the board. The directors have to mention the dissolution of partnership, as solicitors, of Messrs. Pocock and Marston; and as both these gentlemen had applied individually for the appointment, both being shareholders, the directors were placed in a difficult position, but considered that, rather than to have the unpleasant task of determining in favour of either, it would be more satisfactory to select another, which they have done, by appointing John Butler, Esq., as solicitor to the company.

Statement of Receipts and Expenditure, from April 1, 1848, to March 31, 1849.

1848—May 8.—To advance by bankers	£300 0 0
Call of 4s. per share on 3970 shares, 754. ; less unpaid on 225 shares, 45. .	749 0 0
Oct. 2.—Call of 10s. per share on 3885 shares, 1942. 10s.; less unpaid on 621 shares, 310. 10s.	1632 0 0
1849—April 13, 1848, to March 31.—Twenty-six transfer fees at 2s. 6d.	3 5 0
Total	£3184 5 0

The CHAIRMAN said, that the accounts had been carefully audited by Mr. Smith, in whom the proprietors at all times placed great confidence, and at the last general meeting appointed, requested him to act as auditor. He would not then enter into details relative to the affairs of the company, as no doubt many questions would be asked, to which he would have an opportunity of replying. In order, however, to put the business in better before the proprietors for discussion, he would move that the report be received and entered on the Cost-book. It might be expected that on moving the adoption of the report he would enter into the subject generally; but, under the peculiar circumstances of the case, and meeting so many gentlemen for the first time, whose interests had hitherto been distinct, he (the chairman) would rather hear the opinions and views of the shareholders of the companies, and thus save the time of the meeting, by replying generally to whatever observations might be made.—G. R. MEZELER, Esq., seconded the motion.

The Rev. G. Pocock did not intend to enter into any inquiries relative to the statement of accounts and balance-sheet, as they appeared to him to be perfectly satisfactory. There was one thing, however, which appeared to him to be a great omission—viz., that they had no report or statement from the mine relative to what was going on, or what was likely to be the product from it. It appeared to him that it would be most satisfactory if something positive as to the state of the works was laid before the meeting.

The CHAIRMAN was happy that the subject had been mooted, as there were several gentlemen in the room who were largely interested in the mine, and who lately personally inspected it. There was also present a gentleman who had long resided on the spot, and had every opportunity of making himself acquainted with the value of the mine. He alluded to Mr. Forrester Scott, who was well known as a good geologist and mineralogist—who he (the chairman), had requested to attend the meeting, being perfectly disinterested either for or against the company. It was the pleasure of the meeting, he would ask Mr. Scott to state what was his opinion relative to the mine. (Hear, hear.)

Mr. SCOTT said that he was present in consequence of accidentally meeting the chairman the previous day, when he requested him to attend and give the proprietors his opinion as to the value of the mine. He had, during the greater part of last year, resided on the spot where the mines were situated, and having formerly been connected with the Pennant Mine, the directors had asked him to accompany a mining captain of eminence when he went to view the Craigwen Mine. He might state that that mine had been worked more or less from time immemorial, and at the bottom of the hill there were two, if not three, large farms which had been purchased from the picking up lead on the surface, or he might say the lead steallings, without working. So valuable were the parts of the mine which had been worked, that under the old process of smelting, upwards of 40 oz. of silver had been produced to the ton. The mine had been for some time in the hands of parties who could not sufficiently work it for want of the necessary machinery, so that they did little more than barely pay their expenses from hand to mouth, but it was his opinion, however, that with the necessary machinery the mine must be very profitable, and he had shown him (Mr. Scott) that there was a sufficient quantity of lead

thrown up on the banks to render the working profitable within one or two months. (Hear, hear.) In fact, from want of machinery, the works had to be stopped, in consequence of the water getting into them, and all down the hill there were holes with plenty of good ore, which had been worked by the spade and pickaxe only, till they got filled with water. (Hear, hear.) He did not mean to tell them that they had got a California—(Laughter)—but they had plenty of lead, which was better than a little gold. They had a hill-shaped mine, with an adit 300 fathoms from the surface, and at that depth miners considered a lead mine more valuable than gold. (Hear, hear.) He believed that the Pennant Mine had hitherto been worked somewhat injudiciously, but he was sure that if the same money had been spent upon Craigwen it would have returned a good dividend. If they were to give up the mine now, they would do so just as it was becoming valuable. (Hear, hear.) In reply to questions, he (Mr. Scott) said that the profitable machinery could be erected for working the mines for an expense of 5000, or 6000, there being ample water-power; and that as soon as they could get the stamps and cranes to work, they might return 1000. worth of lead from the ore lying on the bank; and that, if they proceeded with the excavations, the machinery would repay the outlay in two or three months at the furthest. He believed, indeed, that the

mines had had an offer to work the mine at a fixed sum.

The CHAIRMAN said that they had received an offer, which they had not thought it desirable to present to accept, to work the mine at 67. 10s. per ton; and as the price in the market was now 17. to 30s., that would leave them a good profit.

Mr. SCOTT believed there could be no mistake as to the value of the Craigwen Mine. The lead was particularly good, producing from 37 to 40 ozs. of silver to the ton. He thought it would be a pity to drop the concern now, especially as the chairman states there is an offer, on the machinery being completed, to work the mine at 67. 10s. per ton. There could be no doubt, also, of Pennant being a good lode, but the question was where to cut it. In fact, whenever a miner saw the indications along the ravine, he was struck with its appearance, though he believed that, as regarded its working hitherto, it had been misjudged. He alluded only to the conduct of the engineers; the works themselves were admirably executed. He did not in any way refer to the management by the directors; he was formerly a member of the board, and must bear testimony to the efficient manner in which the directors always had, and did control affairs.

The CHAIRMAN said, that as he understood there was a shareholder in the room, representing, in his own family, 1000 shares, or one-eighth of the property, who had inspecting the mine, he should like to hear his opinion of it.

Mr. ROBERT DOUBLEDAY, the gentleman alluded to by the chairman, bore his testimony in support of the statements of Mr. Scott. He had personally inspected the mines, had taken out large pieces of metal with his own hands, and felt confident of the value of the set, not only with respect to the large quantity of ore in sight, but as a lasting mine. (Hear, hear.)

Mr. ALFRED SMITH, Mr. Charles Smith, and Mr. William Doubleday (likewise friends), who, having a large interest in the undertaking, had also visited the mines, expressed themselves equally satisfied with the prospects of the company, and that nothing but energy and funds were required to make it lucrative. Mr. Charles Smith had been down twice, and his second inspection fully confirmed his original impression.

Mr. WILLIAM BEARD said, he felt equally confident of the issue of Pennant itself, without reference to the resources of Craigwen. The indications were most undoubted, and he should urge a vigorous prosecution of the works hereafter, especially in the Plumy Valley, where Nos. 17 and 14 lodges were conspicuous, in an extraordinary degree, on the surface and side of the mountain. He felt great interest in the matter, and many looked to him for the issue. He was the first shareholder in the company. He originally took only five shares, but rapidly increased his stake, so satisfied was he with the prospects of the undertaking held out, and which he felt confident would still be realised. Undoubtedly much unnecessary expenditure had been incurred through the misdirection of the engineers originally employed, but there was no blame due elsewhere. He had been to the mines, and examined for himself, and he should go again. (Hear, hear.)

Mr. MANSELL (the purser) said, that it was quite true that Mr. Beard was the first gentleman who took shares in the company, and which was the origin of the large and powerful connexion which the company could boast of. The undertaking was much indebted to Mr. Beard. He regretted equally with Mr. Beard that Pennant had hitherto been unproductive. Mr. Beard, however, was not altogether without remuneration for his unceasing support of the project. His connexion with Pennant was the cause of his being blessed with a wife; and he (Mr. Beard) never hesitated to say that he was the happiest man in the world. (Laughter.) Had not Mr. Beard accompanied him (Mr. Mansell) to the mines, he would probably be still living a solitary life. (Laughter.)

Mr. CHARLES SMITH hoped all the bachelors would follow the example of Mr. Beard, and that their visit to Dinas would result in each having a wife. (Laughter.)

Mr. G. P. POCOCK rose for the purpose of making some remarks as to the improper manner in which the directors had conducted the affairs of Pennant; but the CHAIRMAN said, he thought he could save the time of the meeting, and prevent much unpleasantness, if Mr. Pocock would allow him, previously, to make some observations, which he had intended to reserve for a later period—in which Mr. Pocock immediately acquiesced.

The CHAIRMAN said that, as the subject had been broached relative to the Pennant Mine, he would take that opportunity of making a few observations. It appeared to the directors that it would be better to go pressing the works at Craigwen, and leave Pennant unworked at present. They would recollect that, at the meeting held last year, the directors were somewhat reserved on the subject of the amalgamation of the two mines. (Hear, hear.) He believed that they would now see the motives of that reserve. The directors then declined to give their reasons in public, and Mr. Charles Smith was directed to hear them in private. On retiring from the room, it did not take two minutes to satisfy Mr. Smith that they had got a good thing. He previously knew the value of Craigwen; and, when he re-entered the meeting, his radiated countenance was quickly communicated to the rest of his friends, who were fully convinced the directors had acted wisely. Mr. Smith told the shareholders that they had better leave the matter in the hands of the directors, which they accordingly did. (Hear, hear.) At that time the board knew that the workings of the Pennant were not prosperous—that they were working in the wrong place, and that they must begin their workings *de novo*. The directors felt themselves justified, from the prospects held out to them by mining engineers of eminence, in pursuing the course they had; but, at the time, they told the meeting they felt that, unless shareholders would respond to a call, it would be impossible to go on with the mine, though they were more assured than ever that it was a good concern. Alas! had been made to the world, when the mine had been worked. Now, he felt bound to state, that the purser, who was not, however, a professing miner, but, from his practical experience and geological knowledge, had always pointed out the course they ought to pursue; but the directors did not feel themselves justified in going in opposition to the opinion of those eminent mining engineers on whose reports the company had been formed, and the shareholders had taken their share. Though they had not fully convinced their surveyors were wrong, and their purser right, they did not feel justified in acting in opposition to their opinion—for, had they done so, and their surveyor had proved to be right, they would have stood in an awkward position before their proprietors. (Hear, hear.) They now would not trust to their reports; but would use their own common sense in future workings. (Hear, hear.) They now knew for a positive fact that Craigwen was at present in the best position to make immediate returns; and they, therefore, proposed to devote their money towards working that mine—being fully assured that it would give them such large returns as to enable them to give a good dividend on the capital employed, and, at the same time, put by a portion of their earnings, to enable them to proceed with the gradual exploration of Pennant. (Hear, hear.) They could not say positively what was the real value of the Pennant, as compared with the Craigwen; but the latter they knew to be valuable, and the former they were told was so. (Hear, hear.) At Craigwen, they were assured there was 10,000t. worth of ore in sight. (Hear, hear.) He had no hesitation in saying, that he believed the Craigwen would at once make a handsome return, from which they would be enabled to put by a sufficient sum to gradually work the Pennant, which he hoped, and felt convinced, would prove profitable. (Hear, hear.) According to the laws of geology, the lode of the Pennant ought to have been in a direct line; but there having been volcanic eruptions at some time at that mine, the lode had been thrown out of its proper course, and made a slide. At all events, it did not slide into the right place—(laughter)—though they could now tell exactly where to look for the lode. (Hear, hear.)

Mr. G. P. POCOCK had come there pledged to move for a committee of inquiry; but, after the very candid explanation of the chairman, he should decline doing so. (Hear, hear.) He felt the utmost confidence in the management, and should decline any further opposition to them, done by all in his power to support the directors in their views. Some conversation took place as to the propriety of making so large a call at one time, but it having been explained that it was a portion of the agreement with the Craigwen Company, that a call of 8s. should be made, and that it would be injudicious to cripple the directors in their operations, the resolution was unanimously agreed to.

At the suggestion of Mr. ALFRED SMITH, that it would be desirable for the company to meet sooner than they had hitherto done, it was resolved that in future the meetings should be held quarterly.

A vote of thanks was then given to the chairman and directors for their gratuitous and efficient services.

The CHAIRMAN returned thanks for the honour conferred upon himself and colleagues. He could only say that the directors had done their best for the interests of the company, and if they had not been crowned with success it was owing to matters beyond their control. (Hear, hear.)—The next resolution which he had to propose was—¹That the best thanks of the shareholders be given to the purser for the attention and zeal which he has always shown in the performance of his duties; and they regret that the position of affairs should still prevent a more substantial acknowledgment of his services.² That gentleman was present. (Hear, hear.) That gentleman had had to undergo many vexations from observations made, because of the non-success of the mine, but he had for years cheerfully given his time, which was in fact his capital, to the service of the company; and he (the chairman) hoped the day was not far distant when they would be able to acknowledge that the labourer was worthy of his hire. (Applause.) Even, however, should they come into a position to pay Mr. Mansell for his present services, he feared that it would be a long time before they could pay for what were passed. The labour of a man must not be measured by the success of a measure in which they were engaged—as too often the most unsuccessful required the greater energy. Mr. Mansell had in every emergency shown that he possessed that energy, and therefore he was most happy in having the power to propose this resolution.—Mr. MARSTON seconded the motion, which was carried by acclamation.

Mr. MANSELL begged to thank the chairman and proprietors for the very flattering manner in which their favour, which they had just conferred upon him. He had always given his best exertions to promote the interests of the company, and would continue to do so. (Hear, hear.) He trusted the good times were coming, and nothing that he could do to hasten them should be wanted. (Applause.)

It was then resolved—¹That the shareholders regret that circumstances should have occurred to lead to a severance of Messrs. Pocock and Marston from the company as the solicitors, and take this opportunity of expressing their sense of the careful and judicious manner in which the legal affairs have been conducted.—Messrs. Pocock and Marston seriously acknowledged the compliment.

The chairman having retired on the motion of the purser, and Captain Thomas Rose called on to preside, it was moved that a vote of thanks be given to Mr. B. O. Aland, for his able services in the chair.

The Rev. G. Pocock begged that he might have the gratification of seconding the resolution. It was the first time he had had the advantage of meeting Mr. Aland, and he was bound and glad to say that, from the very candid and straightforward manner in which every question had been met, and full explanations given, by the chairman, he retired from the room with different feelings to what he entered. He had come with the full determination for a searching inquiry into all matters connected with the company, and especially to oppose giving such large powers to the directors in making calls to go over a period of six or eight months; but all feelings of doubt had been removed, and it was with the fullest confidence he left the affairs in the hands of the chairman and directors. The vote was then carried unanimously, and Mr. ALAND returned thanks.

BLOW FOR BLOW.—The pitmen of the Radcliffe Colliery having "struck," the owners resolved to "stick," too. The men demanded higher wages—their employers, higher prices; and as the former have put an end to the contract under which work was found for them, the latter have felt themselves at liberty to lay off the pit for a few months, whether their men relish so long a holiday or not. Other owners, it is probable, if a similar opportunity should be afforded them, will embrace it gladly.—*Gatehead Observer.*

SOUTH AUSTRALIAN MINING ASSOCIATION—(BURRA BURRA).

The general half-yearly meeting of this association was held at the offices of the company, Rundle-street, Adelaide, on the 18th of October last.

CHARLES BECK, Esq., in the chair.

The following report of the directors, and accounts, were submitted to, and approved by, the meeting, and ordered to be printed:—

Since the directors had last the pleasure of addressing the shareholders, an important improvement has taken place in the mine, by the discovery of a valuable lode in the 30 fm. level, leading from Kingston's to Graham's shaft; the lode has been cut 4 fm. below the water level, is solid,



THE MINING JOURNAL.

THE WORTHING MINING COMPANY,

NEAR ADELAIDE, SOUTH AUSTRALIA.

[Previously Registered, pursuant to 7th and 8th Vict., cap. 110.]

Capital £100,000, in 10,000 shares, of £10 each.—Deposit £2 per share.

PROVISIONAL DIRECTORS.

DAVID HALLETT, Esq., 19, St. Helen's-place, Bishopsgate-street.

RICHARD HALLETT, jun., Esq., Woodford, Essex.

GEORGE EDMUND HODGKINSON, Esq., 74, Cornhill.

FRANCIS PEGLER, Esq., 46, Lime-street.

HENRY RENDELL WOTTON, Esq., 33, Fleet-street-square.

TRUSTEES.

RICHARD HALLETT, jun., Esq.

GEORGE EDMUND HODGKINSON, Esq.

FREDERICK MILDRED, Esq.

ADVISORS.—John Carter, Esq.; Charles Downes, Esq.; Cyrus Legg, Esq.

AGENTS IN AUSTRALIA.—C. Beck, Esq., Chairman of the Burra Burra Mine; J. Hallett, Esq., A. Vaise, near Adelaide; A. Hallett, Esq., Worthing, near Adelaide.

BANKERS.—Messrs. Masterman, Peters, Mildred, & Co.

SOLICITOR.—George Carew, Esq., No. 22, Lincoln-inn-fields.

SECRETARY.—Mr. John Watson.

OFFICES.—No. 76, CORNHILL.

This company is formed for the purpose of working a tract of about 800 acres of valuable mineral land in South Australia, known by the name of Worthing, situated about 16 miles south of the city of Adelaide, directly on the sea coast, with a natural creek, at the entrance of which craft can load, and only 6 miles from Glenelg, where vessels of large burden discharge their cargoes; ores can, therefore, be shipped at an expense of only a few shillings per ton, thus affording a manifest and most important advantage in the cost of carriage.

Good copper ores having been found on the property, the proprietors were induced to send samples to England, and in 1847 a private association of 10 individuals was formed, who subscribed £1000 for the purpose of proving the mines, with the option of purchasing two-thirds of the property, the proprietors stipulating for a reservation of the remaining one-third. A mining captain, and five working miners were accordingly sent out, and the result was, that within 12 months of their arrival in Australia (and long before the expiration of the time allowed to the promoters to determine as to the purchase of the property), proof having been obtained of the existence of large and well-defined lodes of copper, the promoters decided to complete the purchase according to the terms of the agreement, and having since arranged for the purchase of the remaining third on advantageous terms, they now propose to form a company for the purpose of working the mines effectively, in the fullest confidence that the property will prove very valuable.

It is proposed to create 10,000 shares of £10 each, on 7000 of which a deposit of £2 per share shall be paid on complete registration of the company, the remainder to be appropriated, free of all payment, by way of deposit or otherwise, in the following manner:—viz.: 1000 to the vendors of the estate, and 2000 to the 10 purchasers, who are also the proprietors of the company, which agree to receive as full compensation for the risk and trouble incurred in proving the mineral properties of the land.

The amount of the deposit will, after providing for the purchase of the whole of the property, the actual expense already incurred in proving it, and incidental expenses in providing the company, leave about £3000 working capital, and the mines having been already so far developed, it is not expected that more than this sum will be required to make them remunerative.

The property is an original grant from the Crown, and free of any claim for Royalties. The report of the mining captain, Mr. John Phillips, will be found explicit in practical detail, and the promoters heartily believe that they do not at all exceed the real prospects of the mines, of which several competent authorities in the colony have given the most favourable opinions; and Mr. Alfred Phillips, the Australian Mining Company's captain, states:—“The lode at the Worthing is fully equal in size to any at the Redy Creek” (Tungillo Mine). On this gentleman's opinion, in addition to that of their own mining captain, the promoters, from their knowledge of his great caution, strict integrity, and practical knowledge, place the utmost reliance.

More than one ton of ore, collected from the different workings, the assays of which yield on an average about 30 per cent. of copper, may be seen at the company's offices, 76, Cornhill, where the mining captain's reports and plans of the property are open for inspection. The proximity of the land to the city of Adelaide will enhance its value yearly for building and agricultural purposes; a considerable portion has been for some years in cultivation, and it has a farm-house and other buildings upon it.

With a view to an identity of interests, and in order to render official remuneration contingent on the success of the undertaking, the directors (whose qualification will be the continued holding, by each, of not less than 100 shares) and the agents in Australia will not receive any salary until a dividend or dividends, amounting together to £5 per cent. on the paid capital, shall have been divided amongst the shareholders (the 3000 shares appropriated, as before-mentioned, for the purpose of dividends, being considered as paid up to the same extent as the other shares).

The erection of smelting works now in progress in the colony, will increase considerably the value of mining properties there.

The affairs of the Company will be conducted by not less than five, nor more than ten, directors in England (aided by agents in the colony), under a Deed of Settlement registered according to the provisions of the Act recently passed for regulating joint-stock companies, with liberty, if requisite, to apply for an Act of Parliament; and a general meeting of the shareholders will be held once a year, when a balance-sheet, and a statement of the Company's concerns will be produced for inspection.

Power will be taken in the deed to purchase or work on Royalty or other mineral land, and to increase the capital, should it hereafter be deemed advisable.

Not more than £1 per share will be called at any one time, of which three months' notice will be given, with an interval of not less than three months between each call.

Numerous applications for shares having been made on behalf of parties resident in the colony, the promoters think it right to state, that in the allotment of shares due provision will be made for the same.

THE WORTHING MINING COMPANY,
No. 76, CORNHILL, LONDON.

The provisional directors of this company hereby give Notice, that NO APPLICATIONS FOR SHARES WILL BE RECEIVED after MONDAY, the 16th inst., and that the allotment will take place on the Thursday following.

By order,

(Signed) J. WATSON, Prov. Sec.

SOURTON CONSOLS MINE.

In 5000 shares, not to exceed £1 each (if required).

CONDUCTED ON THE COST-BOOK SYSTEM.

This MINE is situated in the parish of SOUTON, between Tavistock and Okehampton, and was, in 1845, taken up by a company, under lease of 21 years, and at a due of 1-15th, who worked it for some time; but, from improper management of their affairs, they became involved in debt, and the sett and materials, &c., were recently sold to clear off the then remaining liabilities.

The lode is a regular one, running a little north of west and south of east, as is usually the case with the copper veins of the neighbourhood, such as in the Great Wh. Friendship Mine, &c., and is has been cut in a pit on the back, and also in a shaft 10 fathoms deep—in each of which is a most kindly gossan, averaging 9 feet wide, and bearing a strong similarity to the gossan of the Devon Great Consols, and spots of copper have been seen in it, but at so shallow a level no discovery of importance can reasonably be expected.

The sett on course of the lode is about a mile in length, and to the west is Wheal Sarah, on the same lode, which produces grey copper ore, mixed with silver. To the east, about a mile, the granite commences; and there are other known lodes within the sett, which is altogether an extensive one, and which can easily be rendered more so on very moderate terms, by the indispensable addition of a sett to the north, in close contiguity with it. A reference, however, to Mr. John Hitchins's subjoined report will give a better idea of the nature and capabilities of the sett, and whose recommendations it is proposed to carry out.

An engine-shaft has been sunk to a depth of 18 fathoms, at a distance north, calculated to cut the lode at 35 fathoms deep—the ground being a congenial blue killas, of an easy nature for working.

There is a sufficiency of water to work during most of the year; but, in case of necessity, an additional quantity can be brought from the River Oke, on lease, at £6 per diem, as long as it might be required; and the leats can be cleared up at a trifling expense.

The projectors of the proposed company having possessed themselves of the sett, together with the major part of the machinery and materials, comprising a new water-wheel of 40 feet diameter, and 20 feet in breast, an excellent run of surface rods, 2 inches diameter, with pulleys and stands, travelling balances and shafts, a whim and pump-set, triangle, &c., 14 fathoms of 8-inch pumps and shafts, working with wind-bore and slack-door pieces, complete—altogether 19 fathoms, shaft, rods, &c.—offer the whole for £625, or £4, 6d. per share, a sum greatly below their original cost.

The mine is held in much esteem in the neighbourhood, and a portion of the shares have already been applied for, but not of sufficient amount to defray the expenses of working it to the necessary extent; the present mode has, therefore, been adopted to obtain the co-operation of some influential London party.

All persons desirous of joining in this adventure are invited to send their own agents to inspect the mine.

As soon as three-quarters of the shares are allotted, a preliminary meeting will be held, for the purpose of settling the rules and appointing a committee of management, as well as other necessary agents.

A deposit of 5s. per share will be required to cover the cost of the sett, materials, &c., and to provide a fund for consummating the workings; and for the security of the subscribers, the same is to be paid to the credit of the company, into the bank of Messrs. Gill and Randle, Tavistock, Devon, whose receipt shall entitle the holder to priority of entry in the cost-book. All surplus shall be returned, and no subscriber's liability shall exceed beyond the £1 per share.

Every other particular can be obtained, and a list of the adventurers, together with the name, seen in application to Mr. George Trickett, sharebroker, Post-office Chambers, Plymouth; Mr. John Hitchins, mining agent, Tavistock; Mr. John Ball, Okehampton; and Mr. T. P. Thomas, sharebroker, No. 2, George-yard, Lombard-street, London—to either of whom applications for shares are requested to be made.

Prospects may also be had at the office of the Mining Journal, 26, Fleet-street.

Plymouth, March 12, 1849.

SOURTON CONSOLS. Tavistock, March 13, 1849.

Sir.—Having at the desire of several of your shareholders carefully inspected the seat and workings of this adventure, with a view to submit my report thereto, I beg to state as follows:

1. The back of the lode, as seen in the shode shaft sunk theron, presents the most promising appearance for copper I have for a very long time seen, being in effect a similar but kindly gossan to the back of the Devon Great Consols lode, as first discovered in Wheal Maria.

2. The lode is a regular one, 9 feet upwards wide, running about east and west, and underlying a hill about 3 feet in a fathom, with good walls, analogous to and parallel with the Wheal Friendship Mine lode, and is a congenial killas stratum, bordering on the granite formation, distant about a mile to the eastward; and copper ore has been met with in the drift of the adjoining sett of Wh. Sarah, to the west, on the same vein.

3. There has been considerable useful work done, besides commencing an engine-shaft to take the lode at 25 fathoms below the surface—in my opinion an eligible point—18 fms. of which are already sunk. The water-wheel, flat-rods, pumps, and other appliances now in the mine are in very good working order and of sufficient power to drain the mine to a great depth. Should the preliminary trial not now advise of sinking the shaft to intersect the lode, and driving—say 50 to 80 fathoms each way—east and west theron, induce a more extended working this, together with providing the necessary additional materials, as well as to pay the value of the present machinery, can be accomplished for about £3000, and occupy in time about 15 months.

In conclusion, I strenuously submit, that on no account should this kindly undertaking be abandoned until the trial I have advised be made—the more especially as so much has already been done, and which, without a further trial, can only be regarded as money thrown away. I, therefore, hope soon to see the resumption of operations actively carried out, and I have no doubt but that they will be crowned with success.

I remain, Sir, your most obedient servant,

JEHU HITCHINS.

DUISBURG IRON-WORKS AND MINES, in

WESTPHALIA, CLOSE TO THE RHINE.

MANAGED IN ENGLAND ON THE COST-BOOK PRINCIPLE.

The demand of the North-Western States of the Zollverein for pig-iron smelted with coke requires an annual importation which, in 1846, exceeded 100,000 tons of that metal.

Its present average current price, in Westphalia, inclusive of duty, is per ton £5 16s.

Being possessed of extensive mines of iron ore, entirely paid for, the Duisburg

Company proposes to turn out this year only 150 tons of pig-iron, made with coke, per week, which, owing to circumstances peculiarly favourable as to

minerals, fuel, and carriage, can be produced at a cost, per ton, not exceeding 200

Thus leaving for division among the holders of the 3000 shares, in which the

capital stock is divided, a net profit, per ton, of £3 16s. 6d. or £9 per share of £1.

Every further information to be obtained, and specimens inspected, at the company's offices in London, 28, Moorgate-street.

DUISBURG IRON-WORKS AND MINES.

COMPANY'S OFFICES, 28, MOORGATE-STREET, CITY.

Notice is hereby given, that NO APPLICATIONS FOR SHARES will be RECEIVED after SATURDAY, the 14th April next.—March 31, 1849.

HOLNE PARK TIN AND COPPER MINE.

WORKED ON THE COST-BOOK SYSTEM.

Capital £7680, in 1300 shares, of £5 each.—Deposit £3 per share.

OFFICES—18, ADAM-STREET, ADELPHI.

THE MINING JOURNAL.

MANAGED IN ENGLAND ON THE COST-BOOK PRINCIPLE.

This valuable MINERAL PROPERTY is situated in the parish of HOLNE, in the county

of DEVON, on the banks of the River Dart, and held under an agreement for lease of 21

years at 12thd. per annum.

This mine is a new discovery, and now at work to the south of the Whiddon, Ashburton, United, and West Beam Tis, and Copper Mines, about 3 miles; and to the north-east of Coombe Tis Mine, 1 mile. It is about 2 miles west of the town of Ashburton, and 8 miles from Totnes, through which place the South Devon Railway passes to Plymouth, by means of which the ore can be conveyed to port for exportation, at a very moderate expense. The River Dart, running at the foot of the hill, can be made navigable as far up as Totnes, also affords an easy and cheap mode for exportation.

The set is in a beautiful killas, or clay-slate strata; there are four lodes now worked

on, and there are several large lodes of tin and copper traversing the sett—all composed

of gossan, soft spar, mullion, mullion, carbonate of lime, and large rocks of copper ore, of

fair quality (from 14 to 26 per cent.).

The west of this sett the lodes form a junction with the Dartmoor granite range, where the best deposits, both of tin and copper, &c., have been discovered, making the

largest and most productive mines in Cornwall and Devon.

The River Dart, running at the foot of the hill, can be made available (with a small outlay) for all the purposes of the mine, thereby superseding the necessity for steam-

power, and causing a great saving in the working of the mine.

The reports of the various mining captains who have lately inspected the sett, speak in the most flattering and encouraging terms.

These reports are set out at length in the prospectus, which can be obtained at the office of the Mining Journal, 26, Fleet-street.

CAMBORNE CONSOLS MINING COMPANY.—NOTICE

OF CALL.—Notice is hereby given, that the directors have this day resolved that the subscribers, or shareholders, in this company PAY, and they are hereby required to pay, on or before the 21st day of April next, into the bank of Messrs. Praed & Co., 189, Fleet-street, London, a CALL OF ONE POUND upon each and every share held by them in this company; and that, pursuant to Art. 116 of the Company's Deed of Settlement, all and every share, or shares, upon which the said call of £1 per share shall not be paid within 14 days after becoming due, will be subject to absolute forfeiture.

No payment on account of the aforesaid call will be received by the company's bankers without a special order, which may be obtained on application to the secretary, at the company's offices, 29, Poultry, with whom the present certificates must be deposited, to be exchanged for share certificates of £6 paid.

By order of the board of directors,
TUCKER & STEVENSON,
Sun Chambers, Threadneedle-street,
Solicitors to the Camborne Consols Mining Company.

CALLINGTON MINES COMPANY.—At the Annual General Meeting of shareholders in this company, held at the offices, 44, Finsbury-square, on the 30th inst., the following resolutions were proposed:

Resolved.—That the report and accounts, now read and submitted, be received and adopted by this meeting, and entered in the cost and transfer-book of the company.—Carried.

Resolved.—That Peter Stansby, Esq., the director retiring from the direction of the company by rotation, and who offers himself for re-election, be re-elected a director of the company.—Carried.

Resolved.—That the auditors, Messrs. Hammond and Leary, who retire from their office of auditor, and who offer themselves for re-election, be re-elected the auditors of the company for the present year.—Carried.

Resolved.—That the shareholders are much benefited by the able management of the directors, and that a special vote of thanks is hereby given to them, for their prudent and skilful administration of the company's affairs.—Carried.

Resolved.—That this meeting recommend to the directors the immediate and vigorous prosecution of the Kelly Bray Mine, in accordance with the advice of Mr. P. N. Johnson.—Carried.

AMHEROE WHEAL MARIA.—A General Meeting of the adventurers in this mine, duly convened by the Purser, was held at the offices, King-street, Cheapside, on Thursday the 5th inst., at One o'clock.

P. DAVEY, Esq., in the chair.

The circulars conveying the meeting were read by the secretary, James Crofts, Esq., and the minutes of the previous meeting confirmed.

The balance-sheet was presented, showing—Expenditure up to the end of January last at the mine, and in London

is driven. To drive north in the 60 fm. level, 2 fms. stent, by 4 men, at 40. 10s. per fm. and 5d. tribute; the lode in this end is 3 ft. wide, 18 in. of which is good work. To drive south in the 60 fm. level, 2 fms. stent, at 5d. and 5s. tribute; in this end the lode is 2 ft. wide, grey throughout. To sink a winze in the bottom of the 60 fm. level, 2 fms. stent, by four men, at 27. per fm.; this winze will ventilate the 70 fm. level, and be down by the time the end is so far south. The lode, we expect, will yield about 19 cwt. of lead per fm. To drive north in the 11 fm. level, from Charlotte's shaft, four fms. stent, by four men, at 3d. per fm. and 5s. tribute; there is a fair lode in this end, and being easy for driving we are laying open excellent tribute ground. The shaft is not set; it was put up at 16d. per fm., but refuted, we shall, therefore, have to get a fresh pair of men. The lode in the bottom of the shaft is much improved. The last sinking the lode threw out some capital stones of lead; we cannot, however, say much about it at present. The following pitches were also set:—In the back of the 70 south, by four men, at 11s. in H. In the back of the 60 north, by four men, at 11s.; in the back of the 60 south, by four men, at 11s.; in the back of the 60 ditto, by two men, at 11s. In the back of the 46 north, by four men, at 12s.; in the back of the 46 ditto, by two men, at 12s.; in the back of the 46 south, by four men, at 13s. In the back of the 24 north, by six men, at 9s. 6d.; in the back of the 25 ditto, by 4 men, at 11s. In the back of the 11 north, by six men, at 11s.; in the back of the 11 south, by two men, at 11s. The above pitches are all looking well, and there is every chance of the men getting fair wages.

EXMOOR WHEAL ELIZA.—Capt. W. H. Whitford (April 5) reports—Since my last the sinking operations have been progressing favourably, but there is nothing particularly new; there can be no doubt but the sink will be complete by the time named at the meeting, and I hope to commence cross-cutting north and south about the 16th instant.

HERDOSFOOT.—Capts. Medien and Dunstan (April 3) report—The lode in the 106 fm. level north is 1 ft. wide, but poor; in this level south the lode is 1 ft. wide, producing 5 cwt. of ore per fm. The stopes in the back of this level will produce, on an average, 5 cwt. per fm. The lode in the 94 north is 1 ft. wide, producing 5 cwt. of ore per fm.; in this level south we have failed to meet the level coming from Windsor's shaft, and have driven 6 fms. south of Windsor's shaft, where the lode is 15 in. wide, producing 5 cwt. per fm. The old pitches in this level are not so productive as when we reported last, but we have some new stops to let here, which we shall be able to value in our next report. The lode in the 82 north is 15 in. wide, producing 5 cwt. per fm.; in this level south the lode is small and poor. The stopes in the back of this level will produce, on an average, 5 cwt. per fm. The 75 fm. level north is suspended for a time, until we make a greater trial in the level below; in this level south the lode is 1 ft. wide, but poor. The stopes in the back of this level will produce, on an average, 5 cwt. per fm. The stopes have sank 14 ft. below the 106 fm. level, and the ground is favourable for sinking. We have sampled this day 101 tons of ore.

HOLMBUSH.—Captain T. Chegwin (April 3) reports—The 132 fm. level is getting on pretty well—ground favourable for driving. The 120 fm. level, driving south, to cut the south lode, is not going on so fast as we could wish, having met with a hard stone in the end; in the 120 fm. level south, on the lead lode, the lode is 2 ft. wide, with lead scattered through it. In the 110 fm. level the lode is 3 ft. wide, with good stones of lead at times. In the 100 fm. level, driving north, to cut the caunter part of the Flap-jack lode, we have got favourable ground. All other things are going on just as when Capt. Lean left. We sampled, at Calstock Quay, on the 30th of last month, copper ore, computed at 83 tons.

KIRKCUDBRIGHTESHIRE.—The agent (March 31) reports—The lode in the engine-shaft is 5 ft. wide—a soft spar, with fine stones of ore through it. The lode in the 50 end east is 3 ft. wide, with good stones of ore on the north side of it. The lode in the 50 west, which we have again resumed driving, is about 1 ft. wide, with small strings of lead ore in it. The lode in the 40 west is 4 ft. wide, with a branch of lead in it, yielding 6 cwt. per fm.; it has turned its head northward a little. The lode is still small in this, and ground tight for breaking. We have engaged a vessel for another cargo of ore.

LAMHEROE.—Captain J. Tab (March 28) reports—The engine-shaft in rank 8 fms. below the 50 fm. level, the men are at present engaged in fixing the standing lift from the 40 to the 50, and will complete it by Saturday; this belongs to the contract before named. At Davey's shaft, 14 ft. below the 40 fm. level, since last reported (March 7), we have been cutting ground for cistern, putting in bearers and stays for plunger, cutting ground for H piece and door-piece, joining new piece (10 fms.) to main rod, fixing 20 fms. of 14-in. plunger-lifts, and bringing to surface 18 fms. of drawing lifts, &c., which work will be completed on Saturday, the 7th April next, for the sum of 27s.; after which the men will go on with their former contracts in sinking as deep as the 50 fm. level, without any further delay. Mr. Sunley, who was here, has been underground, and minutely examined the lifts and progress in shaft, and to whom I must beg to refer you, as being more explanatory than I could be in a written report; that gentleman was also over the set, and saw the B and other lodes.

LEWIS.—Capt. S. S. Noell (March 31) reports—The lode in the 70 east is 2 ft. wide, yielding a small portion of tin; the 70 east, on the south branch, is worth 6s. per fm.; in this level west, on the south branch, the lode is much the same as when last reported. The 60 east from sump-shaft, on Cock's branch, is worth 15s. per fm.; the 60 west from the new working of San Juan has continued in a vein of about 1 yard wide, with good pittas of silver, but yields little ore; it is now far advanced towards a junction with the lode of Celestina. The attle he is still yielding some ore, and as the whole produce of the mine covers the cost, without including the general expenses charged monthly, I have not thought it prudent to abandon it, as it gives some ore for the hacienda, and the end we are driving is not unpromising.

CELESTINA MINE.—There has been no improvement in this mine. The end driving south from the new working of San Juan has continued in a vein of about 1 yard wide, with good pittas of silver, but yields little ore; it is now far advanced towards a junction with the lode of Celestina. The attle he is still yielding some ore, and as the whole produce of the mine covers the cost, without including the general expenses charged monthly, I have not thought it prudent to abandon it, as it gives some ore for the hacienda, and the end we are driving is not unpromising.

EL BOTE MINE.—There has not been time since the arrival of the packet to discuss fully with Mr. Placid the subject of his proposed visit to Europe; he, however, proposes to deliver the negotiation to me at the end of this month. I visited the Bote this morning, and found the preparations for the engine well advanced. The stack is nearly finished, and the cylinder and some other pieces are already in their places, and one of the boilers will be finished putting together in the course of the week; but still there is some building to be done, and other considerable expenses to be incurred before everything is completed, and the engine at work. The ores which have been extracted during the month have been scarce in quantity, and of low ley, but there is an evident improvement in the veins which are now coming to the surface from some of the deeper bottoms. The Compania cross-cut has not yet reached the lower wall of the vein, nor have any ores been cleaned from this point; an end driving eastward, however, in the same level, appears to be coming on better pittas. The prospects of the negotiation, however, on the whole, are not very encouraging at present; for, although there appears to be great hope of improvement in the vein at a little greater depth, yet this cannot be available below the level of Compania until the water be drained through Taylor's cross-cut. We may still be fortunate as to meet with ores of somewhat better quality above the present water level, and thus be enabled to meet the current expenses of the mine till the engine is erected, and some relief obtained by the draining of the vein below Compania, and the cessation of the principal expenses of buildings, &c., at San Genaro, which weigh so heavily upon the concern at present; but should we be disappointed in this respect, we can scarcely avoid being involved in serious difficulties, if the necessary be not furnished for putting the negotiation in working condition. The weekly produce of the hacienda is all that is to be depended upon for meeting the weekly expenses, and it is barely sufficient. I am informed that many necessary works for opening the ground and examining the lode are not undertaken from want of means, thereby limiting the operations to the points at present worked for ore, and lessening the chance of speedy acceleration in the produce; and should this still further diminish in value, it may be difficult, or nearly impossible, to find the means here for carrying on the concern to a successful issue, which could scarcely be doubted, if the works were prosecuted with the energy and spirit which the enterprise merits.

ST. JOHN DEL REY MINES.—*Moro Velho, Jan. 8.* Produce for December, 22,209 2-3ds octavas = 213,356 lbs. troy; 22,180 octavas from 6650 tons of ore, yielding 2-3ds octavas per ton; 26 2-3ds octavas from Feijos = 22,206 2-3ds octavas. Though this is 1200 tons less than the produce of the preceding month, I am convinced it will be perfectly satisfactory to the board, seeing that, to keep the stampa supplied, we have been obliged to use 1400 tons of lupa, sent up from the mine, as well as to bring in from the refuse heap about 370 tons. The valuation of the 6650 tons of ore stamped may, therefore, be made as follows:—1770 tons of lupa, at 14 octavas per ton, 2655 octavas, or 49,890 tons of good ore, at 4 octas per ton, 19,520 octavas = 22,175 octavas. Stamps working during the month average 94 1-10ths heads; cost for Dec., rs. 39,564 52s. at 24d., 38,921 1s. 1d.; produce 22,208 lbs.; less duty, 7 per cent., 1554 rs. = 20,654 rs. at 7s. 7d. = 7831 6s. 2d.; showing a profit of 39381 1s. 2d., which will, I trust, prove satisfactory to the board. Allow me to remark that, during the last three months, since the completion of the Powles stampa, the profit has averaged above 38000 per month.

JAN. 18.—Gold extracted to 6733 octavas, from 409 31 cubic feet of sand (being the produce of 10 days' stamping) = 1645 oits. per cubic foot. This does not bear a favourable comparison with the first 11 days of the preceding month; nor can I see any reason for the falling off; but I hope we may improve during the two succeeding portions of the month. Stamps working 17 days, average 93 7-10ths heads. Supply of stone continues but scanty, nor can it be expected to improve until the boring force is increased.

UNITED MEXICAN MINES.—*Guanauro, Feb. 9.* Mine of Rayas.—I have to enclose the usual report by Mr. Parkman of the details of operations during the last month, and of the leading prospects offered by them in the present one, which I am happy to observe, are somewhat more encouraging, for notwithstanding an increased extraction of ores during the month of January, the quality became simultaneously so ordinary throughout all the workings, that the advantage of the former was disproportionately neutralized by the effect of the latter, although additional care and expense were allotted for the better dressing of the ores for transmission to the haciendas. The most advanced point to the south east, and, therefore, virgin ground, is the pit of Santo Toribio, as regards depth—it and the end of Jesus, with its roof, are all presenting an improved character. The general result of last month's operations in Rayas, as shown by the following comparative statement, with the four preceding weeks, viz.—

Four weeks ending— Picked Ores. Half Sales. Outlay.
Dec. 30 Grs. 975 \$6160 7 0 \$24,564 4 4
Jan. 27 3885 6024 4 22,893 1 7

Cargas 910 \$136 3 0 \$1671 2 5
Increase. Decrease. Decrease.

[Note.—The remittance of \$30,000 has arrived.—John MATHER, Sec.; March 31.]

Report on the State of the Working of the Mines of Rayas and Alatana for January.

Mine of Rayas.—During the past month, the portions of the mine worked by us have been unusually poor. We have not present no good point to estimate them with work to spirit; and, until some change takes place in this respect, the sales must continue low.

Santa Cecilia.—This work has continued with its usual characteristics—viz.: hard rock, much water, and very hot. At the same time, the appearances of ore that have, from time to time, presented themselves, have been deceptive; but the work must continue, unless you abandon the solid ground to the south-east, which is the only hope remaining to the mine for improvement.

Santo Toribio.—During the last few days, there has been a change for the better in these workings in different points. The pozos of Santo Toribio, which is the deepest point pertaining to this part of the mine, has improved in the quality of its ores; a small end, which is being driven to the north-west from this pozos, is also giving some narrow threads of good ores. Heretofore the vein has not been inclined to make in this direction.

To the south-east the most advanced points are materially improved—these are the Frentes de Jesus and the Contra Cielo. The Contra Cielo, San Ignacio, and San Atalio are poor.

In San Luis the ore continues, but has not increased in quantity.—In the last two weeks, the water has barely commenced lowering in the Tiro General.

Mine of Alatana.—Mining operations in this mine, being limited for the present to the shaft, do not give much room for remarks during the month. No great progress has been made in sinking, as it has been necessary to devote three weeks' time to the lining of the sides with mason work; in the meantime, an excellent malacata is nearly concluded. We hope, therefore, in one week more, to recommence sinking, and hope to go on without interruption.—S. P. PARKMAN.

MEXICAN AND SOUTH AMERICAN COMPANY.

SIR.—In the City Article of the *Times* of yesterday, there was inserted a summary of my rejoinder to the semi-official reply given by the Mexican and South American Company to the statements I made, with respect to that company, in my letter of the 24th March, which appeared in the *Times* of the 28th. But as I find you gave insertion to the original letter, and to the company's reply, in your Journal of last week, and as much of the evidence from which I took my data was supplied by the columns of your valuable publication, I trust you will have space this week to admit my rejoinder in extenso; and although minor errors are very excusable when treating of the affairs of a company which keeps matters so uncommonly snug, as the directors of the Mexican and South American do, yet I think it will be found that I rather *understated* than *overstated* the case of the shareholders of the Mexican and South American Company v. the Directors.

My first statement, that the shares had fallen as low as 10s. per share, has not been denied (at the present moment a *seller* can only get 17s. 6d. per share); and the other statements which I made, not from personal knowledge, but from general reports (and I so expressed myself), were based on the two following letters that appeared in the *Mining Journal* of the 8th of last July, very shortly after that directorial *exposé* of a failing exchequer which came upon the unfortunate shareholders like a thunder-clap. The letters referred to are as follow: they bear internal evidence of having been written by *bona fide* shareholders, and I have not seen the serious allegations they contain officially contradicted.

No. 1.—"Sir: Some shares in the Mexican and South American Company are advertised for sale under *furta* for non-payment of a call of 11s. I am sorry to say, that the numbers of my certificates do not figure in the list. Unfortunately, when that call was made, I paid it, relying upon the accuracy of statements made by the only parties who could know anything of the company's affairs (for no account has ever been published), that the realisable assets of the concern would produce 5s. per share. On my return to London, a few days since, I learnt with feelings of more than surprise that, at the general meeting held a short time since, it was announced that the company had lost the *whole* of its capital, and would be obliged to make another call of 11s. per share. How this large sum has been dissipated in six months is not explained; but, if it be true, as I heard, that the directors have spent a large sum of money in sending out parties to work some *new copper smelting company* in South America. It is the duty of the shareholders to protest against such an application of their money, *without* their consent. My own belief is, that the directors are individually responsible; for I cannot make out that the *regulations on the scrip* authorise such a speculation.—R. D. : *City, July 4.*"

No. 2.—"Sir: The shareholders in the Mexican and South American Company are strongly recommended to convene a meeting, to institute a rigid inquiry as to the conduct of the directors with regard to the funds of this company, and to take such legal steps as may be deemed requisite. The whole amount of the capital has disappeared, and the directors failed to give any account. I have taken legal opinion on the subject, and am informed that the *real* amount of deposit can be recovered from the directors, in consequence of their having acted contrary to the terms of the prospectus.—A VICTIM: *Charing-cross, July 6.*"

Now, against all this, what is substantially the official writer's defence? He says that the smelting operations are not a failure; but let us see whether the inference to that effect is not fairly justified by the facts before the shareholders. The Mexican and South American Company, with 5s. paid, went on in apparent prosperity for some time, and dividends were regularly given to the shareholders; but, as no sooner has the complete smelting establishment started for Chili, than 22 additional are called for, and nothing more is heard about dividends. The writer admits that both smelting materials and smelters were sent out *prior* to Sept., 1847, and what are the prospects in March, 1849, of a dividend out of profits? Not very brilliant ones, if the complete establishment is only just in operation, after sinking capital for a year and a half.

The assumption that there was a *Deed of Settlement*, if erroneous, was not unwarranted. Few will deny, that every well-regulated company ought to have one, for the security as well of directors as shareholders; but I find, on further investigation, that the Mexican and South American Company is one of those *scrip* companies which seem intended to give directors a *letter of license*, to do pretty much as they please, and that not altogether with their own. Despite, however, the *obiter dictum*, volunteered by Mr. E. Coppard on behalf of the managing director, that "the Mexican and South American board has not exceeded its powers." I repeat that this point appears to me still so doubtful, that it would be for the interests of the shareholders to set it at rest, by laying the *original prospectus*, and also a *scrip certificate*, before some equity counsel, in order to ascertain whether these instruments taken together do authorise the directors to purchase in England the use of a patent, or part of a patent, for the purpose of *experimental* in Chili.

Charles st., St. James's, April 5.

CHARLES RICHARDSON.

BLAENAVON IRON-WORKS.

SIR.—Being no longer in the service of this company, after so many years close attention to their best interests, I think it but justice to state, that since my exposure in the *Mining Journal*, some months ago, of the wasteful manner in which the coals were obtained, causing a large portion to be left and buried, a great change has come over the operations of the company. They could not disprove anything I had said, and it was accordingly resolved upon to give these veins, which had hitherto been treated as valueless, and which I recommended a fair trial; the consequence is, that the furnaces are doing better than ever they did before. They have produced 155 tons per week, each of good cold-blast pig; while the utmost previously was but 100 tons, and the very last week four furnaces made 517 tons of pig-iron. The saving to the company through this change will be 4000*l.* per annum, yet I am sorry to say my recommendation has obtained for me nothing else than a feeling of ill-will. My only motive was for the best interests of the company, and I still heartily wish them every prosperity.—THOMAS DEAKIN: *Blaenavon, April 3.*

THE BON ACCORD MINE, SOUTH AUSTRALIA.

SIR.—My notice has been drawn to an article in your Journal of the 24th March, relative to the management of the "Bon Accord" Mine. As the London agent for the Scottish Australian Investment Company, by whom this mine is managed, I feel bound to prevent your being the means of circulating information that is not correct, in reference to the management of this company's affairs. At the suggestion of several of the London shareholders, made through myself, the directors authorised the managers of the company in Sydney, *at their discretion*, to expend a sum of money, *not exceeding two thousand pounds*, for the purpose of working the Bon Accord Mine—three lodes having been traced to water level, and within 100 yards of the principal shaft of the Burra Burra Mine.

The managers of the company in Sydney have been mainly instrumental, by their judicious arrangements, in bringing the company's affairs to yield a very handsome dividend, and which has been paid punctually every half-year, though no doubt, ultimately, will prove of considerable value, as, from one of the mines—the Scottish Union—the assay of a sample (18 cwt.) of the outcropping, has yielded 19% per cent., and realised 12s. 10d. per ton. I hold a letter signed by the whole of the directors, holding themselves responsible for all money which may come into the hands of the officers of this company.—W. O. YOUNG: *Royal Exchange Buildings, London, April 5.*

[This company holds one-third of the Bon Accord; the North British Australasian, another; and a third party holds the remainder. The whole sett comprises about 480 acres, and is contiguous to the Burra Burra.]

ADVERTISEMENT.

BRUCUTU GOLD MINES, BRAZIL.

"If the cap fits, wear it."

SIR.—In reply to the letter inserted in your Journal of last week, by Capt. William Verran, I beg most distinctly to deny that I ever authorised, directly or indirectly, his taking possession of my maps relating to the above mine, not did he ever ask me to lend them to him. No such conversation took place, as mentioned in his letter, but, on the contrary, I gave strict instructions to the porters not to allow any one to take the maps from my office. I did this, as I was informed by Messrs. Vickars and Knight, of Mark-lane, that maps had been taken from their office clandestinely, relating to mines which Capt. Verran had to do with.—THOMAS BARTLETT: *Lombard-street, April 5.*

EXPLOSIONS IN COAL MINES.—Mr. Hume has a notice on the books of the House of Commons, for Monday, the 16th inst., to move, "That the repeated explosions from fire-damp in coal mines, by which great sacrifice of life, from time to time, has taken place, render it the imperative duty of the Legislature immediately to adopt means now at command to prevent the occurrence of such calamities in future."

PENZANCE CONSOLS.—This mine is situated adjoining Baleswidden on the east, and is known to contain the Baleswidden lodes, besides three caunter lodes! those lodes have been worked in the back for 6 and 7 fms. deep, and as there is no adit they could not go deeper without steam power. About two years back the adventurers now working the mine began to clear up one of the old shafts; in doing so they joined a good lode of tin, they at once began and cut down the shaft, and put up a steam-engine shaft 14 fms. under the surface, and began to extend the 14 fm. level, in doing which they cut a large lode of good tin ground of nearly 10 ft. wide, and in driving this level east and west 12 fms. and working the back over for 8 fms. long, they have broken from 800

RUNNAFORD COOMBE MINING COMPANY.

At the fifth general meeting of shareholders, held at the Black Eagle, Woolwich, the accounts for Jan. and Feb. were presented, showing—Amount received on calls made 9th May and 8th Nov., 11l. 6s., repaid by Dunn and others, 10s.; received on sale of tin (less 12s. dia.), 2912. 0s. 10d. = 3022. 16s. 10d.—Balance due treasurer on last account, 162. 0s. 8d.; cost for Jan., 1192. 0s. 7d.; ditto Feb., 972. 19s. 9d.; dues paid Earl of Macclesfield, 19l. 8s. 10d.—leaving balance in hands of treasurer and purser, 50l. 7s. 5d.; also received on account of call, made 16th Jan., for erection of machinery, 1672. 15s.

The following report, from Capt. J. Chenhall, was read to the meeting:—

It affords me pleasure to be able to state, that the mine generally is looking well. The lode in the adit level, going east, is from 2 to 3 ft. wide, underlying 4 feet in the fine-bearing to the south of east 10°; driving by six men, at 32 ft. per fm.; the lode in this level has improved since last reported on; it is composed of capel, peach, spar, and tin; and I confidently look forward to steadily increase in the value of the lode in this level, as there is a large cross-course about 25 fms. before the present end, and the general character of the ground being very congenial for tin. The stope in the back of the level is looking well; the lode is 21 ft. wide, yielding fair quantities of tin; the ground is favourable for stopping, at 12. 10s. per fm., by six men. We sampled, on Saturday, the 17th of March, about 44 tons of rich tin-ores—offer accepted, 57. 2s. 8d. per ton; and, from the present appearance of the mine, I have no doubt, at our next sampling, the quantity will be considerably more. The stamps are in good working order.

At the above meeting, an offer was made by one of the company to erect the steam-engine, with 36 stamp-heads, and sink the engine-shaft to the 10 fm. level, and drive the cross-cut to intersect the lode, for a specified sum.

At a subsequent committee meeting, held to consider the best mode of carrying on the working of the mine, and also to consider the propriety of accepting or rejecting the offer presented for the erection of the steam-engine, &c., a sub-committee was appointed to make the necessary arrangements, who have, after deliberation, thought it most advisable to carry on the work on their own responsibility as a company, and that the arrangement respecting the erection of the steam-engine, &c., should be abandoned; it was also resolved, to commence immediately driving the cross-cut, from the adit level, sinking the engine-shaft, building engine-house, &c.

SOUTH WHEAL TRELLAWNY MINING COMPANY.

At a general meeting of shareholders, held at the offices, Birch Lane, on the 29th March.—C. CHIPPENDALE, Esq., in the chair,—the statement of accounts was submitted, showing—Balance in favour of mine on 8th Feb. last, 2442. 10s.; call of 10s. per share, then made, 1177. = 361. 10s.—January cost, 65l. 18s. 11d.; February ditto, 512. 2s. 1d.—leaving balance in favour of mine, 2442. 9s.—Outstanding liabilities not included in above or former cost—March cost (estimated), 50l.; damage to land, 1282. = 1782.

The executors of the late Mr. James Milroy having resigned one share, and Mr. Charles Chippendale having resigned 13 shares, the purser was instructed to do what is usual in respect of said shares, according to the mining customs in Cornwall.—It was resolved, that the engine-shaft be sunk 20 fms. deeper forthwith, with as great a force of men as can be judiciously employed, and that the operations of the mine be confined to that object; and that a call of 40s. per share be made, payable immediately.

The following reports were read to the meeting:—

March 24.—The ground in the 30 fm. level cross-cut, west of the lode, is hard, and is extended 7 fms. beyond it, in which there is neither branch or lode to be seen. The lode in the 30 fm. level north of the engine-shaft, is from 2 to 3 feet wide (from wall to wall), and is composed of barytes, killas, fine-grained muriate, and lead; we have now extended this level on the course of it for a great many fathoms, and we are fully satisfied, from the nature of its character, that we may go deeper to find much mineral; we would, therefore, strongly recommend a continuation of these levels (especially the cross-cut west), and remain sinking the engine-shaft 20 fms. deeper, with all possible dispatch, and at that level drive the lode.—WILLIAM LEAN.

March 26.—Since our last inspection, the 30 fm. level cross-cut has been driven west about 7 fms., on a branch of carbonate of lime; the ground in this cross-cut is a mixture of clays and killas, but nothing so far has been seen resembling a north and south lode. The 30 fm. level north is extended from the cross-cut 17 fms., on what has hitherto been called the lode. In the end there are two small branches of carbonate of lime, about 24 feet apart, between which is clays, the same kind as the country. The bearing of this course is about 22° east of north; this, together with its position, are the only things that correspond with the Trelawny and Mary Ann lode. Seeing no improvement in the lode, and nothing met with in the cross-cut west, we now think that the almost only chance of success (if any) is to sink the engine-shaft 20 fms. deeper.—J. BRYANT, R. DUNSTAN.

WEST WHEAL TREASURY MINING COMPANY.

At a meeting of adventurers, held at the mine on the 30th March, a statement of accounts was produced, showing—Labour cost for December and Jan., 6522. 5s. 4d.; merchants' bills, 2812. 2s. 5d.; book in debt, end of November, 3271. 5s. 4d.—1210. 13s. 1d. By call made of 11. 6s. 7d. per share, Jan. 24, 3382. 12s. 4d.; copper ores, March, 831. 17s. 2d.; lead, ditto, 32. 16s. 6d.—showing loss in two months, 41l. 7s. 1d. The following report, from Capt. Thos. Richards and John Delbridge, was read to the meeting:—

March 28.—In laying before you our report for the progress made since the last meeting, held 21st January, we are happy to state that, notwithstanding the wet season we have had to contend against, we are enabled to place before you the statement of accounts, showing the returns nearly equaling the expenditure, leaving a balance of 41l. 7s. 1d. for December 1844 and January 1845, two monthly accounts. The water, since the last meeting, increased two strokes per minute for one month, in consequence of the adit having been interfered with by the tributaries in Old Wheal Providence. However, it is pleasing to state that it is now made secure, and we trust that a repetition will not occur to the injury of this concern. The mine is completely in fork, and the workmen are employed in driving the 70 fm. cross-cut to intersect the engine-lode, where we are about driving the 60 fm. level, and in about 10 fm. from driving, leading from the lode to the 60 fm. level immediately over it. The 60 fm. level east has been worth 10s. per fm. since the last meeting, but at present is only valued at 5s. per fm. We are rising in the back of the 60, to hole a winze sink below the 5'; when communicated it will improve the ventilation for the 60 fm. level end, and the tributaries in the back will work to greater advantage. We are driving the 60 cross-cut south, on the cross-course, to intersect the Lannack Moor lode; at this level we have only s. ea. the lode on the western side for 2 ft. in length, which has a promising appearance, 18 in. wide, with good stones of copper ore. We are still driving south to the lode on the east side of the cross-course, which we calculate favourably upon. The winze sinking below the 40, on engine-lode, which we expect to hole in a week from this, is making tribute ground all the distance sunk. In the rise in the back of the 30 fm. level, on Lannack Moor lode, against the winze sink below the 20, the lode is worth 8s. per fm. The pitchers, generally, in the backs of the 60 and 50 fm. levels, are looking better than usual, and throughout the mine the tributaries are working with spirit, and sending to surface a fair quantity of copper ore. Upon the whole, we consider that the returns for the next two months will be equal to the expenditure we purpose recommending. We cannot forget the disadvantages we have had to contend against in the past winter; and, under all circumstances, we strongly advise (in addition to our present network operation) sinking the new engine-shaft without delay below the 20 fm. level, as well as driving a cross-cut south from Bickford's shaft at the 40 fm. level, to get under it. We venture to recommend that an engine should be calculated to be fixed in the house by the time the shaft is ready to receive the pit-work, which will be in about six months from this date; of course there is no immediate necessity for buying a steam-engine, unless it can be procured worth the money. We consider the liberality of the lords in foregoing the dues should be appreciated, by determining the erection of a suitable engine, which expense, we hope, will not deter us from carrying out our operations in a miner-like manner.

COMBLAWN.—A general meeting of adventurers was held at the offices King-street, Cheapside, on Tuesday, March 20.—JOHN ADDIS, Esq., in the chair—when the statement of accounts, showing a balance against the mines of 182. 2s. 7d., was read by the secretary (J. Crofts, Esq.), and passed, and a call of 22 per share made, of which 10s. per share payable immediately. It was resolved to erect a steam-engine on the mine (not smaller than 40-inch cylinder), with all possible dispatch—to sink the new shaft (now down 20 fms.) to 60 fms., and to drive in the 40 fm. level, when reached, upon the rich silver-lead lode, from which stones of ore have been raised in the 20 fm. level, containing 10 cwt. of lead and 56 oz. of silver to the ton of ore. The purser was instructed to purchase suitable pumps, and other machinery, for both shafts, the old one having been sunk by former adventurers 30 fathoms deep, and both shafts to be connected with the engine by flat rods. A new road and bridge have been made on the mine, and other work done preliminary to its spirited and effectual development.

LWYNMALLE.—The two-monthly general meeting of the adventurers took place at the office of Mr. Maitland, Cophall-court, on Tuesday, the 3d April, when a most satisfactory series of reports were read from Capt. Francis—the last of which is inserted, as usual, in our Mining Correspondence. In consequence of these favourable reports, the subject of a steam-engine was again mooted, and several shareholders pressed the consideration of it at once, upon the ground that the recent discoveries were sufficient to guarantee the erection of one. The matter, however, was postponed until the chairman, or one of the shareholders, should accompany Mr. Murray to the mines. The meeting broke up, after making a call of 10s. per share to meet present contingencies.

WHEAL BASSER.—The statement of accounts to 3d April show—Labour cost for Jan. and Feb., 1885. 16s.; merchants' bills, 7562. 3s. 4d.—2141. 19s. 4d.—By copper and tin sold January and February (less lord's dues, 181l. 11s. 5d.), 2542. 0s. 6d.—showing balance in favour of adventurers, 400l. 19s. 2d.; add balance in favour last account, 202. 12s. 9d.—leaves now in hand, 420l. 13s. 1d.

WHEAL CATHERINE.—A general meeting of adventurers was held, at the White Hart Inn, Truro, on the 28th March, when a balance of 734l. 8s. was found due to purser, and a call of 24s. per share was made. Operations were suspended in 1847.

WHEAL REETH (TIN).—A meeting of shareholders in this adventure took place on Wednesday last at the mine.—B. BATTEN, Esq., in the chair—when the quarterly accounts, ending December, 1848, were submitted, showing the expenditure to be—Wages, 2199l. 4s. 5d.; merchants' bills, 678l. 18s.; sundries, 482. 11s. 8d.; balance on former account, 1788l. 19s. 10d. = 4777l. 14s. 8d. The receipts, tin sold, 2882l. 8s. 2d.; sundries on account of calls, 1351l. 16s.—leaving balance against the adventurers, 543l. 10s. 6d.—[We are gratified to find that the prospects of the mine are represented by the agents to be highly promising—so much so, that with the present price for tin, they hope, at the quarter ending June next, to make a handsome dividend to the adventurers. It should be observed that of the above balance against the mine, about 5000l. is due on calls, which, it is confidently expected, will be paid up before the next account in May.]—*Examiner Journal.*

[For continuation of "Meetings of Mining Companies," see page 162-3.]

THE COBALT TRADE.

In the *Daily News* of Feb. 28 reference was made to information furnished by a correspondent respecting the Modum Cobalt Company, which, it appears, contained some incorrect details. The following counter-statement has been forwarded from Norway, with a request that it may be published:—

"The exaggerations and omissions of the communication, lately published, respecting the bankruptcy of the Modum Cobalt Company, have induced me to request a place for this explanation. The falling off in the consumption of cobalt, and in particular of smelts during the last two or three years, has been owing in part to excess of production, and far more to the general stagnation of commerce in the year 1848. It ought also to be noticed, that the use of smelts in the manufacture of paper has diminished, in consequence of the introduction of a substitute, called 'artificial ultra-marine.' The use of this substitute, however, is already being abandoned, as it is found to give a less lasting colour. In the manufacture of earthware, cobalt is found to be the only substance that produces a blue colour capable of standing the fire; the artificial ultra-marine not possessing this quality, cannot be substituted for it. The number of labourers employed in the company's works does not exceed 300 (including boys and unmarried people)—consequently the statement that 800 families have been left destitute, is a palpable exaggeration. The stock of smelts on hand does not exceed the demand of a year, and future accumulations will be easily disposed of, even on the assumption that the limited demand of the neighbourhood year 1848 is to continue."

"The smelts manufactory can be carried on by from 200 to 300 labourers, the mine containing as rich as ever, and the cost of working it having been considerably reduced. Nothing is wanted but capital and a competent management, with due care to proportion the produce to the demand, in order to make the works remunerative. The buildings and the machinery are in excellent condition; and the working of the mine has been materially facilitated by the construction of new shafts, railways, &c. The Norwegian Government advances money to carry on the works, until the workmen, who have received notice to quit, can obtain other employment. The mine will soon be disposed of by public auction: the stock of cobalt ore, and other materials, is considerable. There can be no doubt that the undertaking may be made a profitable one in future. The principal owner of the work refused to make any further advances; and this circumstance, concurring with a temporary stagnation in the market, rendered an act of bankruptcy unavoidable. The debts of the company are trifling when compared with their assets. The cost price of the stock on hand alone more than covers the claims of the prior creditor. A fair estimate of the value and capability of the Modum Mine may be formed from a perusal of the description of it by M. Robert, director of silver mines, in *Karsten's Archiv für Mineralogie und Hüttenkunde*, vol. 21, part 2, pp. 207 to 229."

THE ELECTRIC TELEGRAPH IN AMERICA.

[FROM A CORRESPONDENT.]

IMPORTANT PATENT-LAW DECISION.—The case, Bain v. Morse, came before Judge Cranch, at Washington, on the 16th March, on an appeal by Mr. Bain from Commissioner Burke. The facts leading to the appeal are briefly (if I remember correctly) as follows:

Mr. Morse had obtained a patent for America, in Great Britain, for an improvement in the telegraph apparatus, and in telegraphing. His patent differed in many respects from that in America. Some time after this, François Morse died, in the archives of the Patent Office, a crossed, setting forth that he was perfect in a new invention, or an improvement upon his former patent; and declaring that in due time he would deposit his model. He did this, and complied with the requisites of the law, and in August, 1848, obtained a patent for his new invention. In the meantime that is, between the filing of Mr. Morse's patent in August, 1848—Mr. Bain deposited in the Patent Office a model of his new invention (for which he had received a patent in England), and demanded a patent therefor. The Commissioners of Patents heard the case, and decided that Mr. Morse had first invented, and had done so previous to the application of Mr. Bain, that Mr. Morse was entitled to priority; and further, that Bain's invention was so similar to that of Mr. Morse, he could not grant a patent to Bain without permitting an interference with Morse's apparatus. This was the general ground of the Commissioners' decision. From this decision Mr. Bain appealed to the Justice of our Circuit Court, who, by law, is appointed to hear all such cases. Judge Cranch has since sent to the Patent Office, his opinion and decision. The decision is, in effect, that the Commissioners did not err in granting a patent to Mr. Morse for his new invention; but he did err in refusing to patent the invention of Mr. Bain. That is, the Chief Justice says, both parties are entitled to a patent, and that there was no interference on the part of Bain's invention with that of Morse's. The effect of the decision is to throw the parties upon the courts of law, to decide their controversies. In consequence of Judge Cranch's decision, there will be no bills in equity, nor injunctions by either party, but if either thinks himself or his invention interfered with or injured by the patent granted to the other, the remedy must be by suit at law, before a court and jury.—B.

MINING IN SOUTH DEVON.—We are happy to observe, from our correspondence, that the spirit of mining enterprise is showing itself in the hitherto quiet district surrounding Ashburton. With the exception of two or three mines on this side of the Dartmoor, we have known very little of its productiveness or probable value. This may be owing to its geological peculiarities—the junction of the granite and killas being dissimilar to any of the various mining districts in Cornwall; and, therefore, requiring the lengthened investigations which have been carried on with doubtful success until lately. The dawning results of these explorations have already influenced some of the landed gentry; and, among other sets lately taken up, we may mention the Weyl Alston as one of the most prominent—being in a compact greywacke, and receiving some of the most powerful lodes that have traversed the contiguous mines. The surface explorations have already proved that considerable quantities of tin are in the property, and Ashburton is reviving, with the hope that the former stanniferous celebrity of this district may again be re-established. We sincerely join the town in its hopes of success.

We understand that the Grambler and St. Aubyn has opened favourably on a copper lode, worth 12s. per fm., in driving westward at a cost of 5l. per fm.

VAN DIEMEN'S LAND COMPANY.—Since the meeting, which we noticed in last Journal, accounts have been received from the commissioner of the company, dated Oct. 28, 1848, giving an encouraging statement of the company's settlement of Emu Bay, situated in Bass's Straits. Allotments in the township were readily selling at from 40l. to 80l. the acre; and shops, stores, and public buildings were in course of erection. The tenants were all thriving, and had intimated their intention of purchasing their farms at the expiration of their leases. Regarding the company's affairs, the agent observes that he sees much to inspire confidence, as the advantages of the company's settlements of Emu Bay and Circular Head are now becoming known and appreciated; and the time is rapidly approaching when the company will enjoy a steady income from the rental of their valuable property.

GOLD IN MARYLAND (U. S.)—Analyses of several specimens of gold sand from the farm of Mr. Ellcott, near Brookville, Montgomery, have been made by Mr. Eckfeldt, assayer to the mint of Philadelphia, with the following results:—

One specimen—5 oz.—yielded at the rate of 744 grains of gold per 1 cwt. of ore. This is equal to 260 dwts. per ton.

Another—9 oz.—900 grains per cwt.; equal to 900 dwts. per ton.

A third—29 oz.—206 grains per cwt.; equal to 171 2-3 dwts. per ton.

A fourth, about 1 oz. of that quality, almost or quite free from iron, selected as the most unfavourable specimen, gave 35 grains per cwt., equal to 27 1/2 dwts. per ton. The gold was 952-1000ths fine by assay, and worth 4 1-10c. per grain.

According to this, each ton of the ore, selected indiscriminately, is worth about \$400.

SALE OF THE OAK FARM IRON-WORKS.—The celebrated Oak Farm Iron-Works, near Dudley, were put up for sale by auction, on Thursday last, at the Royal Hotel, Birmingham. Particulars connected with the unfortunate bankruptcy of this concern have already appeared in our Journal. The fee-simple of the works is in the hands of Lord Lyttelton, the Right Hon. W. E. Gladstone, M.P., and Sir Stephen Glynne. There is an unexpired term of lease of 18 years to run; but there is also a drawback upon this to the extent of 30,000l., in the shape of a mortgage to Mr. G. Talbot, of Kidderminster, and an additional liability in the shape of arrears of royalty, rent charges, &c., amounting to 5000l. The sale drew together a very large attendance of the magnates of the iron trade and others interested, and it was understood that Lord Ward would become the purchaser; ultimately, however, it was hinted that some arrangements had been made, and Mr. Freshfield, solicitor to the Bank of England, on the part of the gentlemen above-named, made a nominal bidding of 1000l., and the proceedings thereafter terminated. The *Birmingham Journal* of this morning says:—"A great question has arisen in the neighbourhood of the Oak Farm estate, whether the works will be again put in operation. That it was Mr. Gladstone's interest to purchase the entirety, there can be no doubt; but the question now arises whether the purchase is made with the view of conducting the business as heretofore, or for selling the estate in detail. The hope of that part of the district is, that Mr. Gladstone, with the immense resources that he has at his command, may be induced, if not himself to carry on the trade, at least to lease it to parties who, for the short period of the lease may be enabled to conduct it profitably to the investor, and to the benefit of the populous neighbourhood in which it is situated."

VICTORIA IRON-WORKS.—We hear that these works have passed from the Monmouth and Glamorgan Banking Company into the hands of the Ebbw Vale Company, on terms advantageous and satisfactory to both parties. We trust that the iron trade will improve as to justify the spirited and enterprising proprietors of the Ebbw Vale Company, in carrying on all their undertakings in this county with energy and vigour; enabling them, while giving full employment to their workmen, to realise a fair and reasonable profit on the immense capital which they have invested.—*Morristown Chronicle*.

SWEET OIL OF TURPENTINE.—A most important chemical discovery has been recently made, by means of which oil of turpentine can be freed from its peculiar smell so completely, that not only is it inodorous, but can be impregnated with any desired perfume, without at all deteriorating from its useful properties. The eminent chemist, Dr. Senn, who has analysed the sweet oil of turpentine, states that, while all the useful properties of oil of turpentine are preserved intact, all its deleterious qualities are completely obliterated. The doctor also states that paint, when mixed with sweet oil of turpentine, is free from smell, and does not emit those noxious vapours which are so prejudicial to health; and that, in short, the use of sweet oil of turpentine is a certain preventive of painter's colic, and by its use, house painting becomes a perfectly inodorous process.

North Roseau.—An accident from a sudden explosion has caused the loss of sight to John Rule, and severely injured Anthony Cock.

Bitsion.—An Irishman, named Luke Batten, came to a dreadful end by falling out of an ascending ship at a colliery near this town. He and four or five others were together, when the ship, having for an instant caught the side of the shaft, a sudden jerk precipitated him to the bottom of the pit, a distance of about 70 yards.

Frodgar.—S. Thomas was killed in the Globe pit, by a fall of roof.

Pendle Works.—T. Jones and two other men were killed here by an explosion of fire-damps, and three others seriously injured.

Rices.—A quarryman named Gough, in the employ of Mr. Fleetwood, was killed by the sudden explosion of a blast.

IMPROVEMENTS IN THE MANUFACTURE OF GAS.

ENGLISH'S PATENT CAMPHINE COMPANY'S SELF-ACTING CAMPHINE GAS APPARATUS, UNDER LETTERS PATENT GRANTED TO J. WATSON AND E. CARY.

We have been much gratified in the past week by the inspection of a new method of generating hydro-carbon gas from oil, which has been patented by the English Camphine Company, at Hull, and may be seen in operation at the works of Messrs. Crosley, Son, and Galsworthy, Emerson-street, Southwark; and it is also successfully employed for lighting the Harrow station of the London and North-Western Railway.

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning Eleven o'clock.

Bank Stock, 7 per Cent., —	Belgian, 4 <i>1</i> per Cent., 82
3 per Cent. Reduced Ann., —	Dutch, 2 <i>1</i> per Cent., 50 4 <i>1</i>
2 per Cent. Consols Ann., 92 <i>1</i> 4 <i>1</i>	Brazilian, 5 per Cent., 79 <i>1</i> 89
4 <i>1</i> per Cent. Ann., —	Chilian, 6 per Cent., 91
Long Annuites, —	Mexican 5 per Cent., 30 <i>1</i> 4 <i>1</i>
India Stock, 10 <i>1</i> per Cent., 24 <i>1</i>	Russian, 5 per Cent., 104
3 per Cent. Consols for Acc. 92 <i>1</i> 4 <i>1</i>	Spanish, 5 per Cent., 16 <i>1</i>
Eschequer Bills, 100 <i>1</i> 2 <i>1</i> d. & 1 <i>1</i> d. 4 <i>1</i> 4 <i>1</i> pm.	Ditto 3 per Cent., 30 <i>1</i> 30

MINER.—The transactions in the mining share market have not been so extensive as we have found them for some time past, although there is every disposition to purchase, especially in our leading mines, which cannot be obtained at buyers' limits. The metal market appears to maintain considerable firmness, whilst in tin and lead an advance is anticipated.

Devon Great Consols have been done this week, in some instances, under our former quotations, notwithstanding an advanced dividend may be expected at the next division of profits in May. We learn, on the authority of an eminent practical mining agent, who has recently inspected the mines, that upwards of 60,000*1* worth of ore is in sight. The advance of the standard has enabled the directors to lessen their sales, at the same time realising larger returns than previously, thereby making reserves for long continuous dividends.

Trelawny, Bedford United, Trehane, and Mary Ann, from positive and anticipated improvements, have been in request. South Bassett, East Pool, Great Rough Tor Consols, Levant, and West Buller, have been sought for, but sellers rather scarce.

Tincroft and Lewis continue to maintain their gratifying positions represented in our former reports, and buyers free at quoted prices.

East Tamar, Son's Tamar, and Heanton Down are not quite so firm.

Bedford United are in demand, and business done at our present quotation.

Shares in the following mines have changed hands during the week:—Devon Great Consols, South Wheal Bassett, Condurrow, Bedford United, Trehane, Trelawny, Mary Ann, Kingett and Bedford, Tincroft, Stray Park, East Tamar, South Tamar, Drake Walls, East Crowndale, Lewis, Tamar Consols, Trevikey and Barrier, Herdofstool, Franco, Treleigh, West Wheal Fennah, Birch Tor, Callington, Cwm Erbin, Wellington, Heanton Down, South Molton, &c.

At the Wheal Catherine meeting, the accounts from August, 1846, to July, 1847, were balanced, and 13*1* 8*1* found due to the purser. A call of 2*1* per share was made.

At the Wheal Bassett meeting, the statements represented the profits for Jan. and Feb. to 40*1*, which, with the former balance, 420*1* 13*1* 1*1*d. was carried to credit of next account.

At the Runnaford Coombe meeting the finances were represented in a favourable position. The agent's report is very satisfactory, and arrangements for vigorous operations are being made for more complete development.

At the South Wheal Trelawny meeting a call of 2*1* per share was made. The reports of Capts. Bryant, Dunstan, and Lean, recommending the only hope of satisfactory results—to sink the engine-shaft 20 fms. deeper, were adopted.

At the West Wheal Treasury meeting, from the statement of accounts, it appeared a loss of 4*1* 7*1* 7*1*d. was sustained during Dec. and Jan. The agent's report, however, is encouraging—anticipating early improvements from present appearances.

At the Pennant and Craigwen meeting (an interesting report of which will be found in another column) the result was highly satisfactory, and there is now little doubt that, after the long delay, through the perseverance evinced, the mines will shortly prove highly remunerative. We were pleased to find the meeting so numerously attended—upwards of 6000 shares being represented, or nearly seven-eighths of the entire body of shareholders.

At the meeting of the Company of Copper Miners in England, on Wednesday last, a protracted and somewhat noisy discussion took place; the report was at length received, and it is hoped a plan will shortly be successfully arranged for a complete resuscitation of the company.

At the Lamherco meeting, on Thursday, the accounts showed a balance in hand of 5*1* 8*1* up to the end of January; 85 shares were forfeited, and a call of 1*1* was made.

At the Comblaw meeting, on Tuesday last, the accounts showed a balance against the mine of 1*1* 2*1* 7*1*d., and a call of 2*1* per share was made.

In foreign mines, the principal transactions appear to have been in United Mexican, St. John del Rey, Australian, Copaiqa, Guadalcanal, Lenares, and Barossa Range, and the North British Australasian.

Dispatches have been received by the St. John del Rey, United Mexican, and the Bolanos Mining Companies.

The St. John del Rey letters are highly satisfactory, which are dated to the 18th Jan., representing the profits for December to be 99*1* 8*1* 1*1*d. 2*1* 2*1*d.

The United Mexican advices are to the 9th Feb. The Santo Toribio Mine is represented to have improved generally, and the remittance of £30,000, advised in the last report, has been received.

The Bolanos advices are down to the 5th February; but they do not contain any matter of importance. The mines, at present, are far from being productive. At El Bote Mine the erection of the engine, and other requisites, were progressing satisfactorily.

About one ton of rich copper ore was found on the surface upon a portion of the Bon Accord property, adjoining Burra Burra. This section of land was purchased by the Scottish Australian Investment Company, who have let one-third to the North British Australasian Company, and another portion to Mr. Rankin, reserving the remainder themselves, and which property, we understand, is being developed.

Since our last, we have received the report of Burra Burra half-yearly meeting, held in the colony, in October last. The financial statement shows a profit of 69,567*1* 9*1* 7*1*d. during eleven months, and dividends to the amount of 61,600*1* paid to the 1st March; seven dividends had been paid, amounting to 123,000*1*. The directors' report refers to a valuable discovery having been made subsequent to the previous meeting, which will give greater permanency to the mine. The report is given in detail in another column, containing highly interesting statistics relative to this most splendid mine.

HULL, THURSDAY.—We have again to report another flat week in the share market. During the early part of the week, a little improvement took place consequent upon the Italian news; since which, however, the information received as to the probability of the commencement of hostilities by the Danes, has checked the disposition to speculate.

RAILWAY TRAFFIC RETURNS.

Names of Railways.	Lghth. Rwy.	Present ac- tual cost.	Price per share.	Div.	Traffic Returns
Belfast and Ballymena.	37 <i>1</i>	—	21 <i>1</i>	5 <i>1</i> p. c.	£ 540
Birkenhead, Lancashire, & Chesh.	19	1,088,804	37	5 <i>1</i> p. c.	552
Bolton, Blackburn, & West Yorksh.	14	7,368,384	7 <i>1</i>	—	388
Caledonian.	141	4,865,135	24 <i>1</i>	—	5055
Chester and Holyhead.	84	3,014,602	18 <i>1</i>	4	1272
Darlin and Droghead.	35 <i>1</i>	774,875	3 <i>1</i>	—	667
Dublin and Kingstown.	72	395,915	—	—	959
Dundee, Perth, & Aberdeen Junc.	47 <i>1</i>	544,554	24 <i>1</i>	6	1005
East Anglian (Lynn to Ely).	67 <i>1</i>	1,167,104	3 <i>1</i>	—	719
East Lancashire.	50	2,628,569	17 <i>1</i>	5	453
Eastern Counties and Norfolk.	30 <i>1</i>	12,027,069	9 <i>1</i>	4	2034
Eastern Union.	50 <i>1</i>	1,712,703	13	—	1081
Edinburgh and Glasgow.	57 <i>1</i>	9,644,378	42 <i>1</i>	6	3529
Edinburgh and Northern.	78	2,232,115	12 <i>1</i>	4 <i>1</i>	1709
Glasgow, Paisley, and Ayr.	102 <i>1</i>	2,366,353	55	4	2712
Glasgow, Paisley, & Greenock.	23	848,328	13 <i>1</i>	4	939
Gt. Northern & East Lincolnshire.	110	4,255,171	11 <i>1</i> 11	5 <i>1</i>	1875
Gt. Southern & Western, Ireland.	131	2,844,857	34 <i>1</i> 4 <i>1</i>	4 <i>1</i>	3529
Gt. Western.	30 <i>1</i>	11,608,815	9 <i>1</i> 5 <i>1</i>	7	19804
Kendal and Windermere.	10 <i>1</i>	174,600	25 <i>1</i>	—	126
Lancaster and Carlisle.	70	1,476,102	55	4	2291
Lancashire and Yorkshire.	20 <i>1</i>	9,218,450	72	—	11120
London and North Western.	43 <i>1</i>	25,077,942	13 <i>1</i> 4 <i>1</i>	7	40033
London and Blackwall.	4	1,299,675	5 <i>1</i> 4 <i>1</i>	1-12	420
London, Brighton, & South Coast.	162 <i>1</i>	6,382,281	3 <i>1</i>	2 <i>1</i>	6759
London and South-Western.	216 <i>1</i>	7,510,698	36 <i>1</i> 7	6	8741
Londonberry and Enniskillen.	14 <i>1</i>	171,026	16	—	136
Manchester, Sheffield, & Lincolnsh.	91 <i>1</i>	6,046,679	38	5	3131
Midland Company.	47 <i>1</i>	14,042,340	76 <i>1</i> 77	6	20351
Midland Great Western (Irish).	50	725,332	23 <i>1</i>	4 <i>1</i>	1053
North British.	99	3,163,450	14 <i>1</i> 5	5	2645
Scottish Central.	45 <i>1</i>	1,364,228	23 <i>1</i>	—	1023
Brewsbury and Chester.	47	969,618	14 <i>1</i>	5	1388
South Devon.	5 <i>1</i>	1,909,232	17	—	1765
South-Eastern.	165 <i>1</i>	8,116,914	23 <i>1</i> 4 <i>1</i>	6 <i>1</i>	6759
Taff Vale.	38	879,110	23 <i>1</i>	6	2010
Ulster.	36	684,684	45 <i>1</i>	—	700
West Cornwall.	13	—	—	—	260
Whitehaven Junction.	12	180,879	10 <i>1</i>	3	161
York, Newcastle, & Berwick.	269	6,827,849	24 <i>1</i> 4 <i>1</i>	8	11829
York and North Midland.	25 <i>1</i>	4,983,618	44 <i>1</i> 3 <i>1</i>	8	7335

FOREIGN RAILWAYS.		Per cent.	Price per share.	Div.	Traffic Returns
Amiens and Boulogne.	76 <i>1</i>	573,338	8 <i>1</i> 4 <i>1</i>	4	1498
Dieppe.	26	—	—	—	444
Dutch Rhineish.	57 <i>1</i>	—	1	—	876
Northern of France.	211	2,000,060	11 <i>1</i> 4 <i>1</i>	—	18602
Orléans to Bourges (Central).	107 <i>1</i>	600,000	32 <i>1</i>	6	2723
Paris and Orleans.	82	2,011,720	33 <i>1</i>	12 <i>1</i>	8572
Paris and Rouen.	85	2,082,916	22	—	4542
Houen and Haare.	59 <i>1</i>	—	12 <i>1</i> 1 <i>1</i>	—	2272
Strasburg and Basle (monthly).	89	—	6	—	5040
West Flanders.	(ditto)	—	12	—	700

* Interest.—Total for last week, £180,473, being an increase of £37,812 over last year.

PRICES OF MINING SHARES.

BRITISH MINES.			BRITISH MINES—continued.		
Shares.	Company.	Paid.	Shares.	Company.	Paid.
1000	Abergwesulin.	8	256	South Motion.	5 15 17 20
1094	Airfield Consols.	8 <i>1</i>	256	South Tolquis.	14 50 55
1000	Antimony & Silver-Lead.	5	256	South Trelawny.	28 <i>1</i> 2 3
1024	Ainstyburn United Mines.	8 <i>1</i>	3000	South Wheal Mining Co.	3 14
1624	Baldwicksiden.	9	128	South Wheal Bassett.	20 <i>1</i> 250 260
128	Balnoon Consols.	42 <i>1</i>	124	South Wh. Francis.	160 230 40
10000	Banwen Iron Co.	6	1000	South Wh. Josiah.	24 4 14
10000	Baeristown.	54 <i>1</i>	10000	Southern & Western, Irish.	3 4 14
1244	Birch Tor Tin Mine.	24 <i>1</i> 2 <i>1</i> 34	288	Spears Moor.	30 40

THE MINING ALMANAC will be published on the 18th of APRIL last, at the Mining Journal Office, 26, Fleet-street.

Transactions of Scientific Bodies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY	Medical—Bolt-court, Fleet-street	8 P.M.
TUESDAY	Medical and Chirurgical—53, Berners-street	8 P.M.
	Zoological—11, Hanover-square	9 P.M.
	Syro-Egyptian—71, Mortimer-street, Cavendish-square	7 P.M.
WEDNESDAY	Society of Arts—Adelphi	8 P.M.
	London Institution—Finbury-circus	7 P.M.
	Graphic—Thatched House Tavern	8 P.M.
	Pharmaceutical—17, Bloomsbury-square	9 P.M.
	Literary Fund—73, Great Russell-street	3 P.M.
	Astronomical—Somerset-house	8 P.M.
	Botanical—20, Bedford-street, Covent-garden	8 P.M.
	Royal Botanic—Inner Circle, Regent's Park	3 P.M.
SATURDAY	Westminster Medical—17, Saville-row	8 P.M.

STATISTICS OF TIN.

The following is an account of the quantity of Tin and Tin Ore shipped to foreign parts at the ports of Penzance (including Marazion), St. Ives (including Hayle), and Truro, in each of the ten years preceding the 1st of January, 1849:

Years end. Jan. 5.	Penzance.	St. Ives.	Truro.	Total.
	Cwts. gr. lbs.	Cwts. gr. lbs.	Cwts. gr. lbs.	Cwts. gr. lbs.
1847	1657 2 16	1804 3 22	4245 3 17	7724 1 27
1848	5904 1 17	1753 0 0	6156 3 8	13814 0 5
1849	3719 2 17	240 0 0	1480 1 8	5426 2 10
1850	7325 1 17	627 0 0	6390 2 18	19904 9 24
1851	592 0 16	2829 1 16	2731 1 19	8152 3 22
1852	1202 9 11	1000 0 0	5824 3 6	7527 1 17
1853	442 1 22	1461 0 0	—	1903 1 25
1854	2803 0 26	3267 0 0	—	6070 0 26
1855	1543 2 10	3250 1 21	800 0 0	5594 0 3
1856	1771 0 26	200 0 0	—	1771 0 26

From Fowey (including Par and Charlestown) there was only shipped 70 cwt. in 1840. The preceding return only shows the amount shipped to foreign parts; the quantities shipped to other ports of the United Kingdom cannot be rendered—the means of registering such shipments not being afforded to the officers of the Customs, under the peculiar regulations which the law has established in respect to the coasting trade.

NOTICES TO CORRESPONDENTS.

We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

WAGES AND FOOD.—Sir: In fixing a basis for the wages of labourers and mechanics, so as to meet the varying cost of provisions (including wheaten flour and breadmeal, oatmeal, potatoes, butcher's meat, bacon, tea, sugar, and other ordinary articles of diet) and clothing, with other requisites, it may be desirable to many parties, at a period like the present, to be possessed of the best possible information as to the prices of the articles referred to which have prevailed in the respective years for any given period—say, the last 10 years—and to contrast them with the present and probable prices of such articles for the current year. Any information thereon, through the medium of your columns, will confer a favour on—A READER.

T. C. S. (St. Albans).—The first meteorite stone of which we have any accurate account fell on Wednesday, the 7th of November, 1492, at Ensisheim, near Basle, on the Rhone. It fell to the earth was accompanied by a loud clap of thunder; its noise was heard at Lucerne and several other places. It weighed 255 lbs. It was considered so great a curiosity, that it was ordered by the Emperor Maximilian to be pierced and hung in the church. A very large stone, which was observed to fall from the atmosphere in the year 1751, is preserved in the Museum of Vienna. One of 1600 lbs. weight was discovered by Prof. Pallas in Siberia; this, however, is greatly exceeded by the one mentioned by Don Rubin de Celis, as lying on the plains of Peru, which he calculated to be of the enormous weight of 15 tons. Meteorite from has been imitated by alloying nickel with native iron, in the proportion of 90 iron to 10 of nickel.

J. J. Lake, Royal Laboratory, Gosport.—A communication of some length, in answer to "G. E. D.", on the subject of electric conductors, have we are sorry to say, from press of matter, stood over a fortnight, and as it is of immediate interest, as a matter of controversy, must now be lost, we think it better to withdraw it.

An Old East Indian (Cheleaham).—Coal was first discovered in Labuan by Captain Heath, of the *Wolf* man-of-war. The coal appears to be of the description called Cannon; it is of a quality which will neither choke the fire-bars nor damage the plates of our marine furnaces, while in power of generating steam it bears comparison with our English coal—at least, after the friction of an Indian voyage. Captain Wallace of *H.M.S. Nemesis*, thus reports upon it:—"In using, we found it to kindle easily; in burning, it runs into cakes, emitting much heat and flame, and leaving a small quantity of white ash, and no clinkers are found in the bars. The fires, after being well made, did not require raking or poking, and were only cleared out once every four hours, usually done every two hours with English, and more often with Indian coal. The quantity burnt is 14 or 15 tons in 29 hours, or at the same rate as English coal received on board at Singapore. Steam is easily kept up. I have no hesitation in stating that the coal received at Labuan is equal to any English coal I have seen on board steamers in India, and decidedly better than any coal worked in India for steam purposes." An Englishman, Mr. Miles, took a contract, the commencement of last year, to excavate and stack 900 tons for 925*l*, which included the expense of sheds and other incidental. The contract price at Singapore for 900 tons, exclusive of cost of depot, would be 1567*l*, showing a difference of 642*l*, or about 14*l*. a ton. The seam is full 10 feet in thickness, and was traced for a mile and a half by Captain Heath and Lieutenant Forces.

A Keswick Shareholder (City).—Cobaltic galena is a mineral of very recent discovery, and was found at Cleathorpe, in the Hartz, in a vein of clay-slate and brown spar in granite-wacke. It contains—lead, 62·89; arsenic, 22·47; iron, 2·11; cobalt, 0·94; arsenical pyrites, 1·44. Its colour is lead-grey, inclining to blue.

A Constant Reader (Ilington).—Fulminating mercury may be obtained by the following process:—100 grains of quicksilver, dissolved with heat, in a measured 1*l* ounce of nitric acid of 1·2 specific gravity, and being poured cold upon 2 measured ounces of alcohol of about 849, and a moderate heat applied, a powder precipitates, which is to be immediately washed on a filter, and dried with a heat little exceeding that of a water-bath. This powder takes fire at 365° Fahr.; it explodes by friction, by flint and steel, and by being thrown into concentrated sulphuric acid. It is equally inflammable under an exhausted receiver, as surrounded by air, and it detonates loudly either by the blow of a hammer or by a strong electrical shock. It appears to be composed of the nitrous etherized gas and of oxalate of mercury, with excess of oxygen.

A Director (Pimlico).—The mine to which you allude has, for some period, been involved in litigation with the neighbouring property, as to the right to the ore of the lodes. No business, we understand, has been done for some time in the shares. Any respectable shareholder would be able to give you the information you require.

A Manufacturer (Leeds).—1*l* part of tin, 1*l* of lead, 1*l* of bismuth, and 2*l* of mercury, form the amalgam employed for covering curvilinear glass mirrors.

C. G. (Mafred).—The half furnaces used in the Hartz, if there is plenty of wood fuel near the mines, would be the best to erect, to reduce your ores to regulus; but it would be necessary, if you made cake copper, to have a reverberatory furnace. Let us know where your mines are situated, and the relative prices of coal and charcoal in the district, and we shall be better able to advise you as to the most economical system to be pursued. If you smelt by the blast, German smelters would decidedly preferable; those from the Hartz are accustomed to treat difficult ores, and those which contain in their composition several metals and semi-metals. They are in general careful, but very slow workmen. If you adopt the English process, you had better engage your staff from here.

A Young Geologist (Liverpool).—Rocks were first divided into two classes, primary and secondary. To this Werner added a third, which he called "transition" being those that appeared to pass from one state to the other. It has been conjectured that some of the boulders which are found in England have, by some violent convulsion, probably at the flood, been transported from the Scandinavian peninsula to England, as they are of such a mineralogical character as to be considered to be derived from those countries where similar rocks exist. Prof. Sefstrom, of Falun, traced boulders from the upper provinces of Scandinavia to the plains of Germany, several thousand miles from rocks of any similar formation. This account was published in our Journal some years since.

L. B. S. (Llandillo).—"Blue John" is a technical term used in Derbyshire for the blue fluor-spar, produced there. The principal deposit is at Castleton, in the High Peak. It is used for vases and other ornaments. Large blocks of it obtain a high price.

King Coal (Wigan).—Platina has never been discovered alone. Its colour is steel grey. It has been obtained in various localities, the principal of which have been the Ural Mountains in Russia, and the provinces of Chaco and Barbacon, in South America. The Russian Government found it in such abundance at Jostek, in the Perm Government of Siberia, that they have converted it into a medium of exchange, by coining it into ducats of 10 roubles each. Its freedom from rust or tarnish, and not being acted upon by any of the chemical re-agents, renders it extremely valuable in the construction of philosophical and chemical apparatus. That found in the Ural was assayed by Berzelius, and found to contain—platina, 78·94; rhodium, 0·86; palladium, 0·26; iridium, 4·97; osmium, 1·96; iron, 11·04; copper, 0·70.

A Consumer (Marylebone).—An interesting little pamphlet, on the "Advantage of Gas-light in Private Houses," written by Mr. Butler, was published by Parker, of the Strand, in 1843.

A Speculator (Brighton).—The Central of Spain Railway was one of those projected in 1845. It had the merit, among the specious projects of the time, of being perfectly feasible in its execution. The greater portion of it was to have been carried over the plains of Extremadura and New Castle. Captain Pilkington, of the Royal Engineers, was the engineer, and Mr. Harvey the secretary.

A. N. (Penzance).—Three volcanoes are known to exist in California. The principal one, Mount St. Elias, is estimated at from 12,000 to 17,000 feet in height.

F. W. (Hawstead).—The sessions of the Society of Arts generally close about the middle of June. Prince Albert distributes the prizes.

An Original Subcriber (Truro).—One of the most celebrated improvers of the blow-pipe was Gahn, the assistant of Bergmann, who was the first who developed its extraordinary utility.

G. F. (Birmingham).—As soon as we receive it, it will be published, and we have no doubt, will be read with interest.

We have in type a description and illustration of Biram's Miners' Lamp; an interesting letter from M. E. Montefiore Levi, *Ingénieur aux Hauts Fourneaux d'Outre, Etc., Etc.* on Colliery Operations in Belgium, the letters of Laser; An Inventor (Madrid) Mr. Dunn, on the Winning and Working of Collieries; and several miscellaneous papers

** It is particularly requested that all communications may be addressed—
TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, APRIL 7, 1849.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

The purpose, may not hereafter rise into an obstruction to more comprehensive and effective measures.

In another column will be found the report of a very interesting meeting of the **PENNANT AND CRAIGWEN MINING COMPANY**, which was held on Tuesday last. It was more numerously attended than on any other occasion, especially by the members of the Society of Friends, who have always supported the undertaking with much energy. The constituency altogether is one of the most respectable in the kingdom, as regards a mining company; and our object in drawing attention to the subject, is to show how necessary it is in mining undertakings to use every effort, and not to be disheartened by little delays. The greatest cause of the loss of such enormous sums of money in similar associations is the want of patience on the part of the shareholders. Rapid fortunes are too generally looked forward to by those who embark in mining adventures, instead of a steady and regular remuneration for the outlay. The sudden success, such as that which attended the Wheal Maria, was the exception, and not the rule; the reverse is too generally the case. Sometimes one or two associations will be tired out, and the third, after little expenditure, receive the fruits of all the outlay. The Pennant shareholders have persevered for some years, working through the hardest description of ground, but they have never been disheartened—the obstacles, in fact, seem to have inspired energy, rather than to have slackened it. The amalgamation with the Craigwen Company is a most important event to the Pennant shareholders, inasmuch as it once places them in a position to send some valuable ore to market, and to pay dividends on the whole of the shares, while they are progressing in their labours on their own sett. Pennant is the first company which has worked in the Dinas district, which, through the publicity this company has given to the value of the locality, as one of great mineral deposit, is getting into full operation. Various other associations are now spoken of for carrying on mining operations on the same lordship. Large fortunes have been made from the mineral resources of the principality, and the shareholders of this company are deserving of similar results, for their unceasing efforts to carry through their plans. This great metropolis is, in fact, deeply indebted to the metallurgical productions of Wales. The returns from the mines worked by Sir **HUGH MYDDLETON** enabled him, if not to undertake, to accomplish the New River project, by which the greater portion of the population of East London is supplied with water. When he imagined that all his pecuniary resources were exhausted, he found his mines in the principality of sufficient value to enable him to carry through this gigantic and invaluable undertaking. The lead-ore from Craigwen is exceedingly rich, being, we understand, about 75 to 80 per cent. of metal, yielding from 35 to 45 ovs. of silver to the ton, which is now, moreover, considerably enhanced in value by the discoveries made by Mr. P. N. JOHNSON, for the extraction of the precious metal from the lead, by a simple and inexpensive process. The call made at the meeting was for 8*s.* per share, on 8000 shares, and was carried with great unanimity. This will produce upwards of 300*l*, but long before this sum can be expended, there is no doubt that the returns will be sufficient to pay dividends, and speedily to reimburse the capital invested, which amounts to 16,000*l*. It was stated at the meeting, that the value of the ore in sight was fully equal to this purpose.

In the MINING JOURNAL of last week we willingly inserted a communication from our valued correspondent, Mr. J. RICHARDSON, of Neath, on the subject of some remarks we made in a previous Number, relative to the regulations for the introduction of new inventions, and the reading of papers on scientific subjects, at the Institution of Civil Engineers. We should have been most happy to have been convinced, by the statements of Mr. Richardson, that the institution was conducted with that spirit of liberality, impartiality, and, we may say, justice, which ought to mark the proceedings of all public bodies, established for the advancement of science, the fostering of native talent, and the general progress of the arts. We are sorry (and we say it boldly and advisedly), that the converse of this is the fact. Mr. Richardson may be right as to the reading of papers from non-members, and we may have been wrong, strictly speaking, as to the regulation we alluded to; but this we do know, that there exists a clique among the body who rule the destinies of this otherwise highly-useful institution, with whom favour must be curried—aye, by both member or non-member—before he can obtain the permission for introducing a paper for discussion, more particularly if it appears to militate against the interests, inventions, suggestions, or undertakings of any of the combined few, who, under all circumstances, carry everything before them, to the deep regret of their more liberal colleagues, great loss to many a man of talent (but not of wealth), and great injury to the interests of the public at large. We do know several cases, which would have proved of great interest on being made public through the instrumentality of such a body, and to obtain the sanction of which every exertion was made, but in vain; the subjects under notice were thought to interfere with cases of individual interest, as connections of the clique in question, and were consequently *buried*.

We are happy, however, to say, we have every reason to believe that, on a similar case occurring, no longer since than last week (we think), on a subject connected with one of the most interesting discoveries of modern science, the author has determined to publish it, and lay the whole circumstances before the public.

With respect to the Society of Arts, it is evident that we were not sufficiently strong in the observations we then sent it our duty to make. The result of the election at the annual meeting on Wednesday last, and the previous proceedings, will show the general feeling of the members. Previous to the election, the following circular was issued "From a body of members, called *legion*:"

SOCIETY OF ARTS—*Electio of Officers this Evening between Seven and Nine o'Clock.*
Vote for the following names of independent members of the society, who will not run into your debt, but save this truly valuable society from destruction, which must inevitably follow the *self-sacrifice* system now pursued, if not at once stopped.

[Here follows a list of the names proposed, as also of those proposed by the council, which, at present, we must refrain from giving.]

The result was that, although the liberal party did not gain the desired ends, the general confidence is evidently considerably shaken in the council who were re-elected; the 10 elected, who were last year unanimously chosen by 90 votes, obtained only, on this occasion, numbers varying from 61 to 25, the respected chairman, Mr. E. SPEER, alone recording 90 votes; and two new ones, introduced by the clique, only 47 and 53. This is a convincing proof that we are by no means singular in our opinions of the late and present proceedings; but that they are as much regretted by a large portion of their own body; and we have no doubt that the carrying out the resolution for making a *to open show* of the specimens of art and manufactures now exhibiting, will cause so much disgust, and raise such a clamour about their ears, as will either cause a reformation in the proceedings of the council, or an infusion of new and more healthy blood at the next annual election.

NEW MOTIVE POWER.—In our next Journal, we shall be enabled to lay before our readers the particulars of an extraordinary proposition—for impelling, without the aid of engines, boilers, or the use of either fire or water. The description will be in detail.

The ironmasters' quarterly meetings will be held next week as follows:—On Tuesday, at Walsall; Wednesday, at Wolverhampton; Thursday, at Birmingham; Friday, at Stourbridge; and on Saturday, at Dudley. The coal and lime masters' quarterly meeting will be held at Stourport, on the 16th inst.

YSTALIFERA.—Mr. Smith, late of Banwen Iron-Works, came to Ystalifera, last Friday, to take the management, instead of C. J. Hampton, Esq., who is about to leave for the Cambrian Iron-Works, Maesteg. The works at Ystalifera seem as if they were preparing for better times, which we hope are not far distant.—*Swansea Herald*.

The **Gateshead Observer** says—"The proprietor of an engineering establishment, in advertising the disposal of his property, announced that his premises contained a large stock of patent machinery, nearly completed, which, if carried out, would be of the greatest advantage to the new tenant." Candid, certainly.

EXPORTS OF METALS, &c.

From the returns of the Board of Trade for the month and two months ended 5th March last, which have just been issued, there is every reason to believe the commerce of the country to be in a healthy state. Trade and commerce, both home and foreign, are gradually, but fairly, recovering from the paralyzing effects of the continental revolutions of last year. The total exports of British and Irish produce for the two months show an increase over the corresponding periods of 1847 and 1848; for the month ending March 5, they were 421,096^l, more than the corresponding month of last year, and 572,631^l, over 1847, and the increase on the customs for the last quarter has been 200,469^l. The exports of metals, &c., have been as follows for the month and two months ended 5th March, 1848 and 1849:

	Month ending March 5.	Two months ending March 5.	1848.	1849.
Coals and culm	£58,807	£86,119	£139,777	£147,297
Earthware	56,590	64,934	114,574	116,591
Glass	19,991	18,958	32,973	34,007
Hardware and cutlery	144,724	139,658	306,252	252,345
Machinery	68,888	21,788	108,448	50,027
Iron and steel	327,886	311,402	641,261	501,503
Copper and brass	105,083	139,960	191,746	254,951
Lead	5,707	17,470	9,356	26,144
Tin (unwrought)	6,543	4,958	22,646	12,317
Tin-plates	31,617	56,385	77,586	84,892
Salt	7,733	15,575	16,953	27,709
Total	£842,502	£877,237	£1,660,802	£1,507,283

Showing an increase for the month in those articles of merchandise more immediately connected with the mining interest, of 34,735^l, and a decrease on the two months of 153,519^l, the latter being principally in hardware, cutlery, machinery, and iron and steel.

The imports for the same periods of the like descriptions of materials have been as follows:

	Month ended March 5.	Two months ended March 5.	1848.	1849.
Copper ore	Tons 509	281	653	5378
Ditto (unwrought) Cts.	—	3505	—	3505
Iron, in bars	Tons 323	226	1393	1883
Steel	Cts. 2807	543	2307	1096
Lead	Tons 295	224	253	237
Spelter	18	216	102	565
Tin	Cts. 16	1093	16	1093
Quicksilver	Lbs. 5200	—	5200	—
Salt-petre	Cts. 29857	91198	46233	134,002

STATISTICS OF COPPER, TIN, AND LEAD, FOR THE QUARTER ENDING 31ST OF MARCH, 1849.

BY "PLAIN FACTS."

COPPER.

The increasing interest which is taken in mining affairs, renders it very important that there should be some means of ascertaining the progress of this branch of our native industry. There is another reason which calls for such information. An Act was passed last year, which reduced the duty on foreign copper ore to the nominal amount of 1s., at which our home miners felt much alarmed, as tending, in their idea, to depreciate the value of British mining property, and, indeed, to stop the working of many mines in this country. It will be satisfactory to observe, that their fears have as yet proved groundless. The public sales of copper ore in Cornwall, for the quarter ending the 31st March, 1849, as compared with the previous quarter, are as follow:

Quarter ending	Tons.	Average Price	Quantity of	
	Tons of Ore.	Amount.	per Ton.	Fine Copper.
Quarter ending	Tons 31, 1849	£18,093	£188,507	0 6
Dec. 31, 1848	36,093	176,833	0 6	4 18 6

Increase Tons 121 £11,674 0 0 £0 5 11 Decrease 99

It appears, therefore, that there has been more ore sold, and at a higher price, during the quarter just ended than in the previous one; while, at the same time, the former was not so rich in quality as the latter. Let us now compare the quarter just ended, with the corresponding quarter last year, and the following is the result:

Quarter ending	Tons.	Tons. etc. Prod.
31st March, 1848	37,537	£202,517 9 0 .. £5 6 0 .. 3121 15 .. 81
31st March, 1849	36,093	188,507 0 6 .. 5 4 5 .. 2981 11 .. 81

Decrease in 1849 .. 1,444 £14,010 8 6 £0 3 7 140 4

This shows a falling off in the quantity and the price of the public sales, while the produce or richness of the ore is, as nearly as possible, the same. It may be well to show the comparative statements for the last five years, which are as follow:

Quarter ending	Tons.	Average price	Produce.
31st March, 1845	40,967	£ 215,334 3 0 .. £5 6 6 .. 72	
1846	59,335	207,697 10 0 .. 5 5 6 .. 71	
1847	38,071	222,542 9 0 .. 5 17 0 .. 81	
1848	37,537	202,517 9 0 .. 5 8 0 .. 81	
1849	36,093	188,507 0 6 .. 5 4 5 .. 81	

It must be remembered, that these statements, as well as those below, do not show the actual produce of the mines, nor the real quantities sold, as many private sales take place. The tables are correct so far as they go; and it is to be regretted that there are no means at present of making them more complete. They contain the public sales only; but, by the 6th and 7th William IV., cap. 106, the head manager of every copper mine in Cornwall is bound to transmit every quarter, to the registrar of the Vice-Warden's Court, "a full, true, and particular account and return of all metals and metallic minerals (except tin and tin ore) which shall have been brought to sale in, or shall have been withdrawn, from the mine;" and the sum of 1d. in the £1. sterling is levied on the value—so that, through this means, the actual yield of the Cornish miners could, or ought to be, obtained from the Statutaries' Court. Some of the Members for Cornwall should take the matter in hand, and ascertain whether this law is really obeyed. It may be remarked, that the head manager is liable to a penalty not exceeding 50^l, if he should omit to make this return.

While there is this apparent diminution in the public sales of Cornish copper ores, let us observe how the case stands with regard to the Irish, Welsh, and foreign sales at Swansea.

Quarter ending Dec. 31, 1848	Tons 13,689	Avg. price per Ton. £167,877 15 0 .. £12 5 3
March 31, 1849	7,893	97,481 5 6 .. 12 7 9

Decrease in 1849 .. Tons 4,796 £70,899 0 6 Increase £0 2 6

This shows a large decrease in the quantity and amount, and a trifling increase in the price per ton. And, on comparing the public sales at Swansea, in the past quarter, with those of the corresponding one of 1848, we find the following to be the case:

Quarter ending March 31, 1848	Tons 10,368	Avg. price per Ton. £146,502 5 0 .. £12 4 6
March 31, 1849	7,893	97,481 5 6 .. 12 7 9

Decrease in 1849 .. Tons 2,477 £51,020 19 6 £1 18 11

The quantity of foreign ores sold in the quarter just ended was 5954 tons, producing 85,249^l, 1s. 6d. against 10,463 tons, and 148,180^l, in the previous quarter, being a decrease of 4509 tons, and 62,831^l; while, in comparison with the corresponding quarter of 1848, the decrease is 1506 tons, and 33,003^l, the amounts then being 7460 tons, and 128,252^l. There were no Welsh ores sold at Swansea during last quarter, and there was a large falling off in Irish ores, the numbers being 1627 tons, and 11,414^l, against 3065 tons and 19,034^l, in the previous quarter, and against 2619 tons and 18,580^l, in the corresponding quarter of 1848, showing a decrease of 1438 tons, and 7620^l, in the former case, and of 992 tons, and 7166^l, in the latter.

As we have already observed, the effect of the reduction of the duty cannot be said to have been as yet prejudicial to the British mining interest, inasmuch as the foreign ores have fallen off, so far as the public sales are any criterion; and if we refer to the monthly returns of the Board of Trade, just published, it will be found that the importations show a similar result. The quantity of copper ore imported in the month ending the 5th of March last was 2881 tons, against 5039 tons, in the corresponding month of 1848, being a decrease of 2208 tons, and for the two first months of this year the quantity was 5378 tons, against 6363 tons, in the corresponding two months of 1848, being a decrease of 1185 tons.

The present combination among the smelting interest is too well known to require any remarks here; but we cannot help alluding to the fact, as a most serious impediment to the extension and prosperity of mining. The cotton and woollen manufactures of this country have risen to their unexampled value and importance, from the numerous and repeated improvements, which the ingenuity and industry of our people have invented for reducing the cost and increasing the means of their production. Such is the legitimate result of competition. When the manufacture of an

article is open to all, and there are no unfair or unjust causes operating in favour of a few—when, in fact, there is no monopoly in a trade—then the ingenious inventor will always find some one ready and willing to aid him, and to adopt his suggestions, if they are practicable. But in the case of copper smelting, little or no alteration has practically taken place in the process for many years. Not that numerous improved modes have not been suggested, and shown as far as possible to be feasible; but the authors meet with no favour or encouragement from the six or seven houses in the trade. And why is this the case? These gentlemen are reported (and it appears to be true) to be realising large profits by their business, and, under these circumstances, they have no desire to change the system under which their immense profits are obtained. They are content to remain as they are, and treat with apparent contempt all offered improvements. This prevents that extension of the trade which fair competition would undoubtedly effect. However depressed the mining interest is, or may have been, it does not appear that the smelters are very great sufferers. By the *Board of Trade Returns*, it appears that the value of copper and brass manufactures exported during the first two months of this year, was 254,951^l; while, in the corresponding two months of 1848, it was only 191,746^l, being 63,205^l, in favour of this year. Until a great change takes place in the smelting trade of this country, the miner and the consumer cannot expect any great or permanent improvement. There can not be any doubt but that it is capable of much extension.

Another tin mine in our list which deserves notice, is the Ashburton United, in Devonshire. The extent of this seat is about 700 acres. Some of the lodes have proved very productive under different former adventurers. The mine was well known in the reign of Queen Elizabeth. The last adventurers, a Manchester company, after realising about 60,000^l, became involved in a serious lawsuit with the landed proprietors of the neighbourhood, which led eventually to the abandonment of the mine. The present adventurers, who commenced operations in the year 1846, have expended upwards of 3000^l, in laying open the new ground, and clearing out the old. They have realised about 3000^l worth of tin and copper ore during the same time. The copper is of a very high per centage, being 36 per cent. The results are now becoming apparent in the progressive monthly returns of tin, and the favourable discoveries warrant us in believing that our next quarterly return will show a considerable increase over the present. The copper lode is not at present being worked, but it is intended to do so shortly. The mine employs about 100 persons in raising the ore and dressing it. There are other tin mines in this neighbourhood, which must have been worked very many years ago, and are now under serious explorations, the results of which may appear in some of our future returns. The principal of these are the Vitifer, the East Birch Tor, the Coombe, the Whidden, the Gidley, and the Whey Alston. We hope, however, that our suggestions will be adopted by the managers of these and all other mines, and that they will give every information which may be required, to enable a perfect periodical return of tin sales to be made out.

We have no particular remarks to make at this time on the lead mines. Many of the most important ones do not appear in our list—such as the Lisburne, &c. The East Wheal Rose (the returns of which appear to be considerable) is situated near Truro, in Cornwall, and appears at the head of our returns; the extensive deposits in this mine are well known. There are numerous lead mines in Wales. Our attention has been drawn to one which is likely to appear prominently in future returns. We allude to the Llywymnales, which forms one of that series of mines in Cardiganshire which have been so productive, and may be taken as a specimen of the whole. It is only yet explored to the depth of 20 fms. from the surface; and there are now 15 tons of lead ore ready for market, valued at 127 per ton, and former sales to some extent have taken place. It is computed that there are from 150 to 200 tons of good ore in sight. A sample, analysed by Mr. P. N. Johnson, produced—lead, 15 cwt. 2 qrs. 21 lbs., and fine silver, 15 ozs. to the ton of 20 cwt. The vein has lately increased from 2 or 3 inches to 7 feet. The mine employs 42 men.

Public sales of Copper Ores in CORNWALL, for quarter ending March 31.

Mines.	No. Ticketings.	Tons.	Amount.	Av. price per ton.
Devon Great Consols	3	4509	£235,551 10 6	£5 13 1
Corn Brook	2	2440	16145 3 6	£6 12 4
Great Consols	4	2624	12909 1 0	£4 19 1
United Mines	3	2827	11728 15 6	£4 2 9
Par Consols	6	1881	11541 0 6	£6 9 8
Fowey Consols	1	1579	8952 12 0	£5 13 4
North Roskarn	2	1890	8266 18 6	£4 7 0
West Caradon	3	1003	7433 19 6	£7 8 3
North Pool	3	1672	1073 8 6	£4 4 7
Trevikey and Barrer	2	838	5710 2 6	£6 16 3

Original Correspondence.

COPPER SHEATHING, &c.—No. IX.

SIR.—I am sorry to see this important subject so entirely let drop by those whom it most immediately concerns; for, having for some time thought changes in, if not an entire reformation of, the smelting process imminent, it did appear to me of first importance, that the theory and principles of the process should be thoroughly understood, and the particular effect and result of each successive operation certainly known; to prevent hasty errors from injuring quality for the sake of cheapness; and to take advantage of, and improve, all reasonable suggestions, or fortunate accidents; and likewise to know how to distinguish and produce the metals best adapted to particular purposes in the easiest and cheapest manner, as repeatedly suggested in my former numbers. With this object in view, whilst waiting the communications of practical smelters, and the publication of Dr. Percy's investigations, I have been repeating and extending Mr. Merry's experiments on the alloy he was kind enough to send me.

1. On the alloy itself.
2. On the same, converted into sulphuret, roasting it in varied degrees, between the successive fusions.
3. On mixtures of this sulphuret with copper regule, extracted by melting the ore with borax, and treating the mixture as No. 2.
4. On copper regules alone, obtained from different ores, as No. 3, and treated in like manner.

It may be right to say, that my results correspond with his—not only in the series No. 1, but further in the alternate roasting and fusion, No. 2, when the roasting was kept at due medium.

In No. 3, however, and still more in No. 4, the predominance of iron so disguises the coloration, that the distinctions are not clear enough, with any grade of roasting I have yet hit upon, to draw trustworthy inferences from, in the characters of the bead, as a guide to the crucible. The most instructive appearance has been in roasting in the open glass tube, where, in ores containing antimony, that metal seems to adhere very firmly to the regule—its vapour (or one like it) settling in the tube up to the third or fourth roasting. Perhaps, of all the impurities to which copper is subject, in the smelting process, no one is more injurious to its rolling properties than antimony; and, so far as my blow-pipe indications can be depended on, it requires a numerous succession of roasting and fusions to drive it off; and it may be a question whether the reduction of this number of roasting in modern smelting may not be connected with the alleged inferiority of modern sheathing. On the other hand, it may be said, that antimony is easily fluxed off with lead in the refinery, and I believe truly, when good care is taken to skim it well, and get off all the lead. But lead itself, although it softens copper for the lathe, has, I believe, invariably the contrary effect for the rolling-mill; and if any of the vitrified lead, or, still worse, of the antimony-lead glass, is left on the surface, to be reduced in the toughening or polling, the metal must suffer accordingly. In fact, lead has frequently occurred in my analyses; and, on the other hand, these sometimes come out in the analyses of other chemists as well as my own—a minute residue of the precipitate, from the solution in sulphuret of potassium, giving indications somewhat between antimony and molybdenum, though not of a compound of those two metals. Blow-pipe examinations have led me to regard it as a compound of antimony with a little copper, which follows it into that solution; but having never had enough of it to ascertain with certainty, the experiments and opinions of my brother chemists on this point would be particularly acceptable; but to the clear understanding and safe improvement of the smelting process at large, I believe nothing would contribute so effectually as an open discussion and comparison of the observations, inferences, and opinions of practical men, aided by the experiments and reflections of the laboratory chemist; and for such discussion what periodical is so suitable as the *Mining Journal*?—J. PRIDEAUX: *Plymouth*, April 3.

THE CORNISH STEAM-ENGINE—PERRAN ST. GEORGE MINES.

SIR.—The *Mining Journal* being a medium through which much valuable information is conveyed and circulated throughout the mining world, thereby having a considerable tendency to promote improvements which, no doubt, are occasionally of great importance to the proprietors of mines, we, the undersigned, have considered it a duty to publish the following facts respecting the great perfection to which the Cornish engine has attained:—In October, 1844, there was erected on these mines an engine of 300-horse power, on Sime's combined principle. This engine, after the water was pumped out to the bottom of the mine, worked with a load of 90,000 lbs., having lifts, or pumps, two abreast, of 18 and 18½ in. diameter, and raised, on an average, throughout the year above 1,000,000 gallons of water per 24 hours; and from the commencement of the working of the mines to the bottom level, to the time of its suspension (a period of about four years, we were never hindered by any let, or accident, of the engine so much, altogether, as 12 hours—consequently, from the perfect state of the engine, we were enabled to follow our labour just as though the mine had no water in it; so, from these facts and for the following reason, we are of opinion that all engines working with such heavy pumping work should be on the combined cylinder principle. That although the economy of fuel may be as great in the very long stroke, single power, and highly expansive engine, yet, by carrying out that principle in one cylinder only, the great impetus, and, consequently, the great concussion given to the material, by admitting very high steam on such a large surface as an 80 or 90-in. piston, and cutting it off again at one-fourth or one-sixth of the stroke, exceedingly injures both the engine and pitwork, and which has been proved, to the great loss of adventures in many mines in this county—whereas the combined cylinder engine, having to expand the steam in two cylinders instead of one, loses one-half of the ill effects of the expansion principle, and thereby causing the liability of accident to only one-half the amount of that of the long stroke single cylinder engine.

THOMAS PILL (Manager); JOHN R. PILL; JOHN ROBERTS.
Perran St. George Mines, March 28.

RUSSIAN GOLD AND FREE TRADE.

SIR.—The Journal of last week announced that the produce of gold in Russia, in 1848, was 1826 poods; now, as this corresponds almost exactly with that obtained in 1847, it would appear that the produce has ceased to increase. This is, I believe, contrary to general expectation—many having inferred that the yield in 1848 would be 2000 poods—exclusive of a large quantity which escapes the heavy duties—the produce having been uniformly on the increase since 1839, when the quantity raised was only 525 poods. The immense size of Russia, coupled with the Russian year being a fortnight behind ours, tend to the conclusion that the produce in question must have been that of 1847. If, then, we take the produce of gold for 1848 to be at least 2000 poods, that quantity is equal to 27,756 lbs. 11 ozs. 6 dwt. troy—the Russian pound weight, according to Dr. Kelly, contains 6318.5 grains troy—40 lbs. of which form a pood, which weight is, therefore, equal to 43 lbs. 10 oz. 10 dwt. 12 grs. troy. Although very pure gold is found in Russia, the average quality is certainly not finer than standard gold; but taking it to be equal to it, and at the selling price of the Bank of England—viz.: 46L 14s. 6d. per lb. troy, the value of the produce amounts to 4,100,443L 0s. 8d., which is more than the annual produce of all the gold mines of Europe, Africa, and America. Yet, notwithstanding that Russia has otherwise greatly increased in wealth, our trade with that country is falling off year by year—for instance, according to a return lately printed, by order of the House of Commons, the declared value of the principal goods of British manufacture exported to Russia, has diminished from 1,546,226L in 1844, to 1,048,634L in 1847. This is but one reason why free trade should have been confined to the colonies, till foreign countries were ready to reciprocate free trade with us.—W. BIRKMYRE: *April 3.*

ERRATUM.—In line 21 of my last letter, for *confused* read *confined*.

THE ALCHEMY OF GOLD.

SIR.—The Dorado vision of your worthy correspondent, like that of the Bishop of Exeter's dream (*vide Punch*), is "too good to be true." By the way, the true colour of gold cannot be determined, as he supposes, from the currency, because it is gold of 22 carats fine, two parts of copper being added to 22 parts of pure gold. Such is the composition of the "sovereign." We may assume or suppose anything. Imagination may riot unrestrained, and a poetic temperament may soar in its "empyreum," but the severe requirements of inductive truth and Baconian logic are fettered by rules which cannot be impugned, or vitiated. We may suppose a substance to be compound, but if a body has resisted all attempts at its decomposition, beyond all question we have a right to receive it as simple—one and indivisible; and implicitly and unquestioned to accept it as such;

to refuse our assent would be to confound right and wrong—a gratuity here is clearly inadmissible.

There is yet another axiom like unto the first. The convertibility of one substance into another is absurd in its very nature, and evidently self-contradictory. The *alter et idem* will not apply here; contraries cannot synchronise, save by an inversion of reason. The conversion of an oak into an elephant, or the converse of the proposition, a donkey into a thistle, would be occurrences without a rival in "experience," as the sceptic Hume phrases it. Gold has been found in the ashes of a cabbage, but it is just as likely that a particle of gold would form a cabbage, as that a cabbage should produce it. The late Mr. Irton, of Irton Hall, told me he once found a pallet of gold in contact with the breast bone, while carving a chicken. The bird, no doubt, picked it up on his farm; it could not be the gift of the vital principle, which is no *creator*, nor yet is it the *locum tenens* of the *Most High*!

The alchemists were a curious crew. Some of these visionaries believed in what I may venture to call material transmigration, or transubstantiation, while others imagined that there existed a *seed* of gold. The latter alchemists searched, with all due diligence, for it in the metal itself, believing that if the Dorado germ were discovered, and committed to the earth, a golden harvest would reward the lucky adventurer. I cannot determine to what class your correspondent belongs; I only "wish he may get it." I would willingly aid the adventurer in his pursuits by a quotation or two from alchemical writers—"Catch the flying bird, that it may fly no more; then plunge it into the well of the philosopher, by which its soul will be dissipated, and its corporeal particles united to the red eagle." Not being an adept in the "art and mystery" of alchemy, I must leave it as I find it, merely premising that it is by means such as these that, to use the words of Geber's translator, "we are enabled to change *argent vive* into an infinite solidific and lunific, without the help of anything more than its simple multiplication." These are the emphatic words, and I would not weaken their import by any paraphrase of mine. Von Belmont says, he found "the sauce dearer than the meat," but that is none of my business. Sir Kenelm Digby was a notable alchemist; he boldly asserted that a species of Fuller's earth from Arcueil, in France, when exposed to the sunbeams, became successively vitriol, tin, lead, copper, silver, and, in 14 months, it was a lump of GOLD! True, Sturbe called Digby "the Pliny of our age for lying!" but what of that; he was "incredulous?" Poor man! "it is very natural."—J. MURRAY: *Portland-place, Hull*, April 2.

THE MANUFACTURE OF GOLD.

TO THE EDITOR OF THE HAMPSHIRE ADVERTISER.

SIR.—As the article, *gold*, is an interesting subject at all times, but more particularly in the present day of Californian enterprise, I take the liberty of sending you an extract from Arthur Collins's *Baronetage of England* on the same subject. I am the more tempted to do, from reading an article in your interesting paper of the 24th inst., entitled, "Manufacture of Gold," page 5, in which it is asserted that an ironmonger of Liverpool "declares that he has found out a process by which he can change any quantity of iron into gold," &c. In the *Baronetage* above alluded to (the edition of 1720, vol. 2), the author, in his account of the family of the Ashtons of Lever, in the county of Lancashire, gives the following curious notice of one of its members, viz.:—"Thomas de Ashton, the eldest son, succeeded in the inheritance, and, with Sir Edmund de Trafford, Kt., had a patent (24 Henry 6, m. 14), for alchymy, and converting other metals, *per artum sive scientiam philosophiae operari*, &c., *metalla imperfecta de suo proprio genere transferre et tunc ea per dictam artem sive scientiam in aurum sive argentum perfectione transubstantiare ad omnino modis probationes, et examinationes, sicut, aliquod aurum sive argentum aliquo minera crescent expectandum et indurandum*—i. e. by the art or science of philosophy, to work upon certain metals; to translate them, by the said art or science, into perfect gold or silver, unto all manner of proofs and trials, to be expected, and induced, as any gold or silver growing in any mine. Their skill therein was so great, that they were conceived to work by unlawful art, which the said patent also takes notice of, as the effect of malignity in others, to hinder and disturb their operations." Arthur Collins here concludes his notice on this subject, and proceeds with the genealogy of the Ashtons. It must be remembered the above patent was as early as 1446. Southampton, March 26. Y. T. B.

IRON LADDERS FOR MINES.

SIR.—I should think that iron ladders in mines would be infinitely preferable to those of wood, provided such could be preserved free from the corroding effects of the humid atmosphere of the mine, not otherwise. Why not use galvanised iron in their manufacture, or discs of zinc, on a galvanic principle, to prevent their oxidation, &c., such as Davy used on the copper sheathing of ships, only in this case substituting, of necessity, discs of zinc for those of iron, employed by him? J. MURRAY.

Portland-place, Hull, April 2.

MR. HORSLEY'S LAMP.

SIR.—That the entire air-galleries of the mine could be illuminated, with absolute safety, by fixed lamps, supplied with air from without the mine, on the plan proposed by Mr. Horsley, is self-evident, and requires no further demonstration. We must always welcome, with sincere cordiality, scientific efforts like those of Mr. Horsley, and such adjuncts, in the cause of humanity, will always be gratefully appreciated. Clarke and Varley's patent plan I had never heard of till Mr. Horsley introduced his proposal; and, until the *gutta percha* tubing was recognised, Clarke and Varley's lamp remained a dead letter. Mr. Crane's position is very different from that of Mr. Horsley; he denounced ventilation in *toto caelo*, while Mr. Horsley never, for an instant, questioned its importance. J. MURRAY.

Portland-place, Hull, April 2.

HORSLEY'S SAFETY-LAMP.

SIR.—Mr. Horsley states, that the question of expense ought to have but very little weight in the matter. I admit, that where a man's life is in jeopardy, it ought to have no weight. For instance, if a man falls overboard, we ought to save his life at any expense; but if a man desires to dive down to the bottom of the sea to obtain a pound of gold, and that it is necessary to spend 300L to ensure the safety of his life, I should say no. Why go to seek 250L at the expense of 300L? The object of mining is to extract more than the expenditure. If the dangers and difficulties attending the works be greater than the value of the produce, abandon it. No prudent man will go and work in an inflammable atmosphere, however perfect his lamp may be, to injure his health, and expose his life to accidents which may occur to other lamps. The object of the lamp is principally to *examine*, and then apply means to remove the obnoxious gas. The outlay should be judiciously expended for the sake of the men's health, so that they may be able to perform a fair day's work, and also for the permanent security of the property. These inventions are like furnishing miners and colliers with copper hoods and pipes to dive into the works below, similar to the man at the Polytechnic Institution, instead of applying pump to take up the water. It is inventing backward, or working the wrong end. Would it not be much more prudent to abstract the light carburetted hydrogen from the places where it accumulates in the roof and upper cavities of the works, as fast as it evolves from the pores of the strata, by means of gas pipes, independent of the ordinary ventilation, than to lay down pipes simply to convey fresh air to the bottom of some hundreds of lamps, and leave the stalls in a foul state? No improvements in lamps can make up for carelessness and imperfect ventilation; there are abundant means of effecting the latter if properly applied, and, if done, the ordinary safety lights will do. EVAN HOPKINS.

London, April 6.

FAULTS AND GASES IN COLLIERIES.

SIR.—In your truly interesting and instructive Journal of last week, I read an extract from Mr. Hopkins's work on Geology, explaining the cause why gas often exists in one side of a fault and not the other. I am connected with a colliery which is crossed by a large upthrust fault from north to south—the seam dipping west towards the fault. On the east side of the fault, where the coal seams rise towards the surface, the colliers have been working for upwards of 50 years without the least obstruction from fire-damp; whereas, on the west side of the fault, the seams are highly charged with carburetted hydrogen, being dammed, as it were, by the fault. On the east side, ventilation is effected with the greatest facility; but on the west side, without the aid of a very good systematic mode of ventilation, the consequence would be very serious. It is also true that the polar cleavage of this district runs vertical north and south, whatever may be the dips of the beds; and I perfectly agree in Mr. Hopkins's views, that the local accumulation of gases, as well as water, depend

much in the angle and character of the faults, &c., &c., and should be well considered by every colliery viewer. A SOUTH WALES COLLIER.

April 3.

THE REDUCTION OF SILVER ORES.

SIR.—In your last Journal, under the head of "Free Trade," a correspondent, named Mr. Birkmyre, has made several erroneous remarks, some of which I wish to be corrected. I cannot conceive how he could have made such observations as the following:—"The fruitless attempt of the Columbian Mining Association to extract silver from its ores in reverberatory furnaces, is surely conclusive enough that the play of chemical affinities for the extraction of the metals from their ores, is far superior to the mere action of heat in a reverberatory furnace. It was too late for that mining company to rectify its errors consequent upon the want of knowledge regarding the ingenious process of amalgamation," &c. &c. When a gentleman writes in a public scientific journal, and makes such observations as those marked in italics, it is presumed that he possesses some knowledge of the matter, and that he believes, at least, that he is correct. However, I beg to inform him that the mines of the company alluded to have the most perfect amalgamation works that ever were put up on the other side of the Atlantic, and have been in operation for many years; and it has been the only system of extraction adopted since the commencement. The smelting trials were confined to a few experiments made by Mr. R. Stephenson in the beginning, before my arrival at those mines to inspect and report thereon.—EVAN HOPKINS: *London, April 2.*

EXTRACTION OF SILVER BY AMALGAMATION.

SIR.—In your last Number Mr. Birkmyre has committed a very great mistake regarding the process of extracting silver employed in the mines of the Columbian Mining Association. He speaks of "reverberatory furnaces," and also "that it was too late for that mining company to rectify its errors, consequent upon the want of knowledge regarding the ingenious process of amalgamation." He has been misinformed *in toto*. At the commencement of the undertaking, it is true that Mr. Robert Stephenson (their first engineer) made a few experiments on smelting, which soon proved as inapplicable, the ores being too refractory and containing too small a proportion of lead. Mr. Boussingault (the French chemist employed there also under the same company) made several experiments on the *Patio* amalgamation; but the loss of mercury and silver was so great that it was soon abandoned, and the Freyburg system of barrel amalgamation was decided upon, as being the most favourable to adopt. A party was sent out, and the above process was put into operation and established on a small scale. The company sent out subsequently Mr. Evan Hopkins as their principal engineer, to inspect and report on their mines, &c. He remodelled their gold and silver establishments, and erected a complete amalgamation works, on the Freyburg system, with several improvements of his own, and superintended the same for several years. The loss per cent. in silver was reduced to 10, and the loss of mercury to 2 lbs. per ton of ore treated, and the silver establishment is now producing about 6000 ozs. per month, at a cost of about 5000 ozs., depending, of course, on the character of the veins.

As far as machinery and chemical operations are concerned, the shareholders know well that they have had all that can be desired. Nor have they spared any expense to obtain the first-rate men in their respective professions, so as to ensure the most perfect applications. What has operated against these mines are natural difficulties, which are beyond human control, such as the falling off in the quality of the veins, high price of labour, and the great expense attending the transport of materials, &c.

I may note also, *en passant*, that Mr. Hopkins erected all the machinery of the gold district, and which have been considered the most complete and extensive works ever put up in Columbia, which, while the veins were capable of supplying mineral, produced upwards of 100 lbs. of gold per month. The last improvement introduced by the same gentleman enables them now to extract gold with a profit, from stuff formerly thrown away as refuse. In conclusion, I beg to state that what is wanted to render these concerns profitable are, large supplies of minerals of moderate quality, labour and materials, at reasonable rates, and not as Mr. Birkmyre fancies—viz.: the want of chemical knowledge of reduction. I went to Columbia direct from Freyburg, and anticipated to introduce improvements, but I found, on my arrival, the regularity and economy of the operation so complete, and in some of the details better than even in Saxony, that I was compelled to let well alone. Knowing, from years of experience, the process and the mines referred to, and having a desire to check misrepresentation, will I trust, Sir, be sufficient apology for this intrusion on your valuable columns.—A. D.: *Jersey, April 5.*

REDUCTION OF SILVER ORES FROM COLUMBIA.

SIR.—Your correspondent, Mr. Birkmyre, is quite wrong respecting the Columbia Mining Company's process of extracting silver. Had he been a shareholder, and have inspected the plans and reports at the company's office, or those printed and circulated among the proprietors, he would have seen that they did avail themselves of the very best mechanical arrangements and chemical processes known.—W. L.: *Reading, April 4.*

THE MINERS' MUTUAL LIFE ASSURANCE SOCIETY.

SIR.—In a former communication upon this subject, which appeared in your Journal of the 24th Feb., an attempt was made to show the necessity there was for an institution of this kind; and the keelmen's society, in Newcastle, was cited as an instance of the successful application of the principle. There was also a brief, but excellent, letter on the subject by Mr. A. Diamond, in your paper of the 10th March; whilst, in a previous leading article, you mention the great exertions which you had used to establish a society of this kind, and lamented the failure of your efforts. You say, "The Government, while they derive profits from the mines—the country, who benefit so largely from his labour—the proprietor, who gets his gold at the cost of the life of the miner, or collier—have witheld their support to such a measure, and we may say, generally, any sympathy for those to whom they are indebted for their wealth." The subject is too important, however, and too intimately connected with the best feelings of humanity, to be relinquished; and if patronage cannot be obtained from the great and the wealthy, efficient assistance may probably be obtained, from the middle classes, and from the properly directed combined efforts of the miners themselves.

An attempt of this kind is now being made, which, although not so comprehensive as is desirable, yet embraces so much that is excellent as to deserve the strenuous support of every one connected with mining, or who are interested in the welfare of the valuable race of men by whom such operations are carried on. This is the establishment of a "Mining and General Mutual Life Assurance Society," in London, of which a prospectus has recently been issued. The names of the trustees, chairman, and directors, are sufficient to inspire public confidence, and to guarantee the respectability and good management of the concern. Without giving a prolix description of its object and constitution, as set forth in the prospectus, which, doubtless, will shortly appear in your advertising columns, it may be sufficient to state that it seems to be founded on the best and soundest principles of mutual assurance, with the highly important and distinguished feature, that "every policy issued by this society will be absolutely indisputable." It is proposed to raise a temporary guarantee fund of 50,000L, in 5000 shares of 10L each; deposit, 2L per share, which is to be redeemed with 100 per cent. bonus; and 5L per cent. per annum is to be paid for the use of the capital. In the allotment of shares preference will be given to applicants connected with mining. Some tables are annexed, showing the premiums for the assurance of 100L, with and without profits. Then follow three tables, "which have been prepared by this society to enable the operative miner, and every industrious class, or person, by small monthly payments, to make a provision for themselves and their families, when from age they become incapable of labour," as per examples—"A person aged 30, by paying 3s. 4d. per month, may secure the sum of 50L, to be paid on his attaining 60, or at his death, should he die before that time; or, by paying 2s. 4d. per month, he may secure the payment of 50L at his death; or, by the payment of 2s. 1d. per month, he may, on his attaining 60, secure 10L per annum during the remainder of his life. The payment to the society to cease as soon as the annuity shall commence." Thus the miner will be enabled to provide for old age, or for his family in case he is killed, or at his natural death, by a monthly payment of such an amount as he can easily spare out of his wages; and so far the benefits which would result from this society are unequivocal; but there is an important class of sufferers omitted, who have no strong claims for such a provision as those already mentioned. There are many who are rendered incapable by accidents of making a provision for themselves and families by their labour long before they arrive at the age of 50 or 60 years, and who ought to be included, if possible, among the assureds of this society; and it is hoped this subject will obtain the serious consider-

ration of the directors, so that the institution may be as comprehensive and complete as possible.

This society does not propose to confine its operations to those engaged in mining, but to extend them to any class, and will thus enable all who feel interested in the welfare of this industrious body of men to propitiate their comfort, and that of their families, not only without any pecuniary sacrifice, but with remunerative advantage to themselves. In promoting the objects of this society, very material assistance may be rendered by the owners, managers, and deputies of collieries and mines; and it may be presumed that this will not be withheld, but cheerfully and strenuously given, so that a successful issue may result from this feasible attempt to better the condition of the British miner.—J. RICHARDSON: *Neath, April 2.*

THE SAFETY-LAMP.

SIR.—I should exceedingly regret to appear as throwing any obstacle in the way of those who are so nobly endeavouring to obviate the continuous repetition of those accidents so fearfully destructive of human life in our coal mines, yet I cannot avoid concluding, that was your correspondent, Mr. Horsley, and those who support his views (doubtless from the best motives), better acquainted with the various movements a collier has to go through in course of the day in the coal mine, he would at once see that the proposed lamp with its tubes are, for the use of mines, valueless. The workings in some of our collieries extend to from one to four miles underground in all directions from the shaft, and often in each mine from 100 to 300 men will be found at work. Now, each person must have a separate light, and from these few observations it will be seen that from the immense complexity of the tubes thus required, the expense of keeping them in order, and out of danger at every move the collier makes, would be more than the cost of working the colliery. In my opinion, as a practical man, all that is required is a good and profitable safety-lamp, which will give a light at least equal to a candle, good air-currents in the mine, and either a jet of steam, or a furnace to rarefy, and facilitate a current of air through the workings. By proper attention to these means, with, of course, proper doors and stoppings, all the explosive vapours may be carried off, and the mine kept in a perfectly healthy state. The best construction of lamp I have yet noticed is one recommended by Mr. Shepherd, in your valuable paper, a few weeks since (March 24), and I am happy to find your worthy correspondent, Dr. Murray, concurs in my views.

South Wales, April 4. A MINER OF THE NEXT GENERATION.

ON THE USE OF ANTHRACITE IN STEAMERS & LOCOMOTIVES.

SIR.—In the *Mining Journal* of the 24th Feb. you mention my name, in your leading article, as having sent you information respecting the use of anthracite in steamers and locomotives without a fan-blast. In the Journal of the 10th March a letter, signed "Flame," states that you were to a considerable extent misinformed on that head. In the Journal of the 17th March is a letter, signed "T. H. Leighton," containing statements which are incorrect, and I deem it to be due to you and myself to contradict them. It is asserted, "That Mr. John Player patented a part of a new form of boiler for burning anthracite, which I contrived, and gave a sketch of to Mr. William Chambers, of Llanelli, who showed it to Mr. Player previous to the latter taking out his patent." I do not remember to have seen a sketch, or drawing, or heard any description of any plan of your correspondent from Mr. Chambers, or from any other party; but even supposing I had, what I patented was the method of firing steam-boilers, through a tube passing through the centre of the boiler by the gravity of a column of fuel, its base resting on the fire-bars; by this method, anthracite coal may be used without decrepitation and bituminous, or (as it is now called) "steam coal," without producing smoke. On reflection, I find that my first recorded experiment on anthracite by this method was in a model boiler I had made, set up, and worked with a fan-blast, the 25th January, 1837 (at which time I had never heard of Mr. Leighton). From this model drawings were taken, in 1839, for the first 10-horse power boiler built by the Abbey Company for the Gwendrath Iron-works, and set up in that year. In another sentence, it is stated that the anthracite was notoriously a failure. The incorrectness of this statement I think may be shown by the following already published report on the boilers of the *Anthracite* steam-vessel, made December 10, 1839, by Josiah Parkes, C.E., Government Commissioner for Steam-boat Inquiry, &c., and C. Manby, Esq., C.E., F.G.S., &c., to the provisional committee of the Anthracite Patent Company, of which the following is a copy:

In consequence of your request, we hand you the substance of our report on the boilers of the *Anthracite* iron steam-vessel, to which Mr. Player's furnace for using anthracite is applied. We have watched the method of consuming this fuel during several days, working the engine under every variety of circumstances to which a steam-vessel on the Thames can be exposed, whether making long trips, or merely running between the short stations above bridges, and we are enabled to report specifically.

1. That the combustion of anthracite is perfectly effected; no clinker is formed on the fire bars, and there is much less residuum and ashes than from other fuel.

2. That its combustion is not only perfectly free from smoke, but also from any disagreeable effluvia or precipitates.

3. That the boiler furnishes an adequate and particularly regular supply of steam, for engines; the combustion of the fuel being very uniform, and more under control than bituminous fuel.

4. That the method of supplying the fire-grates by the gravity of a column of coal descending through the boiler, and resting on the burning mass without being itself inflamed, is efficient; and that this arrangement effectively prevents the decrepitation usually accompanying the sudden ignition of anthracite. We look upon this very simple method of supplying the furnace with fuel (by which four-fifths of the labour of the stoker is dispensed with), as one of the most advantageous features of the system; and we have also to remark that, by this mode of feeding the fires, the irregularities caused by inattention, or by suddenly throwing on a mass of cold fuel, or the introduction of a body of cold air, which lowers the temperature of the fire places and flues, are avoided.

The boiler to which the apparatus is adapted is constructed on the principle of those locomotive-engines with brass tubes. The length of these tubes being restricted to three feet, from the necessity of keeping the boiler within given dimensions, there has resulted a considerable loss of calorific effect from the heat being entering the furnace at so high a temperature as even to melt zinc readily (700° to 800°); but in spite of this disadvantageous construction of the boiler, the evaporation varied during several hours work from 9-2 lbs. to 8-2 lbs. of water to 1 lb. of coal, although river water at 48° was used for the fuel, instead of that from the consumer at about 90°. This variation (from 9-2 lbs. to 8-2 lbs.) was caused from the water being cleared from beneath the fire for the purpose of testing the powers of anthracite to raise steam rapidly, which lowered the general average result by heating the fuel. We mention these particulars incidentally, because we would confine this first part of our report to the simple statement of the efficient combustion of the fuel and its attendant circumstances, reserving a more positive account of its evaporative effect until the completion of the series of experiments we are about to make with proper apparatus, and correct instruments, on a boiler of such magnitude, and for such a length of time, as to insure all the accuracy you desire.

In conclusion, we are of opinion that the method of using anthracite to which our attention has been called, effectually and satisfactorily demonstrates that it is applicable, with economy, to the purpose of steam navigation.—*JOSIAH PARKES; CHARLES MANBY.*

London, December 10, 1839.

From the foregoing, I think the *Anthracite* was not a failure. It is also stated that I played a prominent part in the era of the anthracite humbug of 1839, "the results of which have been so disastrous, reducing many worthy men to bankruptcy and insolvency." My occupation in 1839 was that of agent to an anthracite iron-works, acting under the orders and control of a board of directors in London. I held the management of those works for nearly three years, and when I resigned it, and took a more eligible appointment, to build iron-works abroad, I applied to my directors for a testimonial as to the manner in which I had conducted their business, and the following is a copy of their reply, which I had always thought a satisfactory evidence that all parties with whom I was connected were satisfied with my actions:

DEAR SIR.—In reply to your request to the directors to be furnished with a testimonial, as to the execution of your duties as the resident engineer and manager of the company's works in the Gwendrath Valley, I am instructed by them to state that, from the very able manner in which the company's works have been opened, and the first furnace and blast-engine built and put to work under your direction, they have great satisfaction in bearing testimony to your capacity in the execution of similar duties in any other coal and iron-works.—I am, dear Sir, your, &c., T. M. VICKERY (secretary to the company).

Gwendrath Anthracite Iron-works Company, Lincoln's Inn-fields, July 13, 1841.

The statement, that your correspondent could not obtain blast in proportion to exhibit his cupola to the anthracite committee, is incorrect, as the cupola having been built in accordance with my patent, there could be no reason, nor was there any objection, to its fair exhibition—the failure was attributed, by disinterested parties, to the novel idea of introducing the blast above, instead of under, the fuel and iron. I should have allowed to pass unnoticed the observations made by Mr. Leighton, if he had not stated that he had before printed and circulated what he terms the "preceding facts." As I was not aware of this before, I feel called on not to allow this second edition to pass without remark; at the same time, I must apologize to your general readers for introducing so much uninteresting matter to their notice.—*JOHN PLAYER, Jun. March 27.*

SULPHUR IN ANTHRACITE.

SIR.—If I understand Dr. Murray's note on this subject in your last Journal, it would appear as though he does not consider anthracite to contain sulphur. I can assure him that some seams of coal are very sulphurous. I have not unfrequently, on entering a room where anthracite

was used as fuel, been met by such a whiff of sulphurous acid gas, as was scarcely endurable. The chimney in such a room would probably "smoke" with bituminous coal; but anthracite emitting no visible smoke, the gas escaped into the room unobserved till felt—not seen. *LUSOR.*

March 30.

THE COMBINED VAPOUR-ENGINE.

SIR.—Seeing, by your advertising columns, that a company had been projected for testing and carrying out the principle of the "combined vapour-engine" (a favourable notice of which appeared in your columns some time since), and that an engine, working on this principle, was to be seen in action every Friday, from one to three, I availed myself of the opportunity of being present at the exhibition on Friday last, since which time I have severely reflected on the matter, and can come to no other conclusion than that the invention, when fully developed, will prove to be one of the greatest importance. A short time since, I expressed an opinion that the time was not far distant, when the fuel consumed in steam-vessels would be reduced to one-fourth of its present amount; that expression was based upon a calculation of the economy to be effected by the application of improvements, distinct from those to be secured by the invention now alluded to, which should it realise anything like what its promoters anticipate—and there are certainly strong grounds for the anticipation—then, instead of requiring one-fourth of the fuel at present consumed, it will be reduced to one-eighth, or even less; for it must be borne in mind that every reduction in the quantity of fuel required is a reduction in the weight to be carried, and, consequently, in the time occupied on the voyage, as well as in the space occupied by the fuel. As one who looks upon the progress of science, especially that branch, or rather those branches of science, which increase our facilities for social and universal intercourse, as the best, if not the only, means by which suffering humanity, in every region of the earth, shall be elevated from its present semi-savage state of strife, bloodshed, and confusion, to a higher, happier, and nobler state of human existence, I hail with pleasure the discovery of this new source of power and economy.—*JOHN WESTON: Kentish Town, April 3.*

ON THE PRESENT STATE OF LANDED PROPERTY.

SIR.—I feel much flattered by your notice of my book, just published, *On the Present State of Landed Property*, in two of your publications. Your remarks in allusion to it, in the later one of the two, lead me to request the insertion of this—not on account of any complaint I have to make of them, but because, although you admit certain facts, you do not admit the conclusions which I draw from them, and which seem to be so evident, that I take the liberty of trespassing upon your columns to show it is so. The facts you admit are—that the produce of labour is more in value than all the property of the nation; and that, if we had the means of paying them, all our working people might be beneficially employed. With a view to give the ability to employ them, I propose one of two ways, with neither of which you agree, both having the same object—viz.: the protection of the value of property created by labour to the standard at which they were created.

You will admit, no doubt, that the value of labour has been much more in this kingdom than in most of the other nations of the world; and that it has been so maintained in consequence of protecting duties; that these duties being abandoned, we must expect the value of property here will be brought down to the level of those in other countries, and, in consequence, our produce must be sold at such prices for our own consumption as the same can be bought for in, and brought here from, other parts of the world. You will admit, likewise, that the obligations of the majority of the owners of property in this country are such that it will not pay if its value is reduced to the continental level.

With these admissions, then, how can you resist the conclusion, that if the employment of labour is to be encouraged, protection, in some shape or other, is necessary? Of the two plans I propose, having as their object the maintenance of value, I should much prefer that of making the value of money subservient to that of property, by allowing a sufficient circulation of notes, based upon the value of the latter, and payable only in gold, at its market value in the world; but if owners of money will not (as they are not likely to do), allow this alteration of the currency, how is it probable the labouring population will be kept in employment, unless the parties employing them have confidence that what they are employed in will be productive? If land, for instance, is to be reduced in its annual value one-half, how can that of any other property be maintained? The landowner who has no incumbrance upon his estate, and who can return half his income, can only spend half his accustomed amount; he cannot afford to give the London householder even half his rent, because his taxes cannot be reduced in proportion; and, under such circumstances, the builder will not employ men in increasing the number of houses; and there must be a corresponding diminution in what he purchases of every thing he consumes, which cannot be obtained at half the former cost. The landowners whose estates are encumbered with annual payments to the amount of half their rentals, must sacrifice them—giving them up to the mortgagees, who, in most cases, have been in the habit of hoarding their interest, and will still continue to hoard their incomes, to the prejudice of that employment which you agree with me is so highly desirable. The same reasoning will apply through all the ramifications of our varied professions, trades, and manufactures; but as I have already taken up more space than your valuable columns can perhaps afford, and for which the importance of the subject must be my apology, I will not now intrude upon them further.

54, Threadneedle-street, April 4. *J. BOYDELL.*

DEPTH OF COAL AND OTHER MINES.

In speaking of the greatest depths within the earth reached by human labour, we must recollect that there is a difference between the *absolute* depth (that is the depth below the earth's surface at that point) and the *relative* depth (or that beneath the level of the sea). The greatest relative depth that man has hitherto reached, is probably the bore at the new salt works at Minden, in Prussia. In June, 1844, it was exactly 1998 feet, the absolute depth being 2281 feet. The temperature of the water at the bottom was 91° Fahr., which, assuming the mean temperature of the air at 49°, gives an augmentation of temperature of a degree for every 54 feet. [At this rate of increase of heat, a stratum of granite would be in a state of fusion at a depth of nearly 21 geographical miles, or between four and five times the elevation of the highest summit of the Himalaya.] The absolute depth of the Artesian well of Grenelle, near Paris, is only 1795 feet. The wells sunk by the Chinese for the purpose of obtaining carburetted hydrogen gas for salt boiling, commonly exceed 2000 ft., whilst one is said to be of the depth of 3197 feet. The relative depth reached at Mount Massi, in Tuscany, south of Volterra, amounts to only 1253 feet. The boring at the new salt-works at Minden is probably of about the same relative depth as the coal mine at Apendale, near Newcastle-under-Lyme, where men work 2175 feet below the surface of the earth. Unfortunately I do not know the exact height of its mouth above the level of the sea. The relative depth of the Monkwearmouth Mine (Sunderland), is only 1496 feet. That of the Liege coal mine, *L'Esperance*, at Seraiing, is 1355 ft.; and the old mine of Marihaye, in the valley of the Maas, is 1283 ft. in depth. The works of greatest absolute depth that have ever been formed, are for the most part situated in such elevated plains or valleys that they either do not descend so low as the level of the sea, or at most reach very little below it. Thus at Eelschacht, in Bohemia, a mine, which cannot now be worked, had the enormous absolute depth of 3778 feet; also at St. Daniel, and at Geish, on the Röhrbühl, there were, in the sixteenth century, excavations of 3107 feet—the plans of the works being still preserved. The absolute depth of the mines in the Saxon Erzgebirge, near Freiberg, are in the Thurmhofer Mines, 1944 feet; in the Honenbirke Mines, 1827 feet; the relative depths being, however, only 677 and 277 feet. The absolute depth of the celebrated mine of Joachimsthal, in Bohemia, is full 2120 feet. In the Harz, the Samson Mine, at Andreasberg, has an absolute depth of 2197 feet. In what was formerly Spanish America, I know of no mine deeper than the Valenciana (Mexico), where I found the absolute depth of the *Planes de San Bernardo* to be 1686 feet; but these planes are 5980 feet above the level of the sea. If we compare the depth of the old Kullerberger Mine (a depth greater than the height of the Brocken, and only 200 ft. less than that of Vesuvius), with the loftiest structures that the hands of man have erected (with the pyramid of Cheops and with the cathedral of Strasburg), we find that they stand in the ratio of eight to one. In this notice I have collected all the certain information I could find regarding the greatest absolute and relative depths of mines and borings. In descending eastward from Jerusalem, towards the Dead Sea, a view presents itself to the eye which, according to our present hypsometrical knowledge of the surface of our planet, is unrivalled in any country. As we approach the open ravine through which the Jordan takes its course, we tread, with the open skies above us, on rocks which, according to the barometric measurements of Berton and Russegger, are 1855 ft. below the level of the Mediterranean.—*Humboldt's Cosmos.*

FOREIGN WINDOW GLASS.—One of the most remarkable features in the imports at the present time is the arrivals of window glass, particularly from Belgium. One vessel, the *Princess Victoria*, has just arrived in the river from Antwerp, with 990 cases on board, consigned to a firm in the metropolis.

TERRESTRIAL MAGNETISM;

AND ITS EFFECTS ON THE SEMI-FLUID SURFACE OF THE EARTH.

(Continued from last week's *Mining Journal*.)

Taking the ocean as the connecting medium between the poles, Mr. Hopkins shows it to be the universal menstruum whence all the variety of materials that constitute land are derived. He does not enter into speculative questions—such as the origin of the globe, &c., &c.—as some of his geological brethren are so fond of; but simply takes the elements as they exist, and deduces, from experiments and observation in the two hemispheres, that the structure and the changes which have taken place, and still are going on in the rocks, are the natural consequences of the enveloped and impregnated magnetic power, according to its properties and known laws. The great currents of the Pacific and Atlantic are constantly from the south. The tidal waves impinge against the Isthmuses of Panama and Suez on the south side. There are no tides on their northern side; neither in the Caribbean Sea, nor in the Mediterranean. The continents are pointed towards the fountain head—the south pole. In a word, every substance, individually and collectively, appear to be propelled towards the north, or pole of decomposition, whence, after the absorption of the hydrogen into the axis, the substances dissolve into the primary fluid; and on in the evolution of the hydrogen at the south, they again take new combinations, according to physical circumstances, and resume their part in perpetuating the operations of Nature. The substances crystallized from the oceanic fluid at the south pole, are dissolved and given back again at the north, and thus the primary liquid is constantly kept at equal strength of soluble matter—whilst the land is perpetually changing the element which has hitherto considered as the type of mutability, remains constant—thus verifying the sublime apostrophe of Lord Byron to the ocean:

"They shores are empires changed in all save these:
Asyria, Greece, Rome, Carthage, what are they?
They waters washed them while they were free,
And many a tyrant since—thy shores obey
The stranger, slave, or savage—t—their decay
Has dried up realms to deserts t—not so thou!
Unchangeable, save to thy wild waves play—
Time writes no wrinkles on thine azure brow—
Such as Creation's dawn beheld, thou rollest now!"

To those who are unacquainted with the great changes now actually taking place in the Americas, Europe, and, indeed, on the shores of our own Island, such movements will be somewhat startling. "From the apparent quiet and regular succession of natural events (says Mr. Hopkins) to which we are accustomed, and the repugnance we feel to the idea that it is possible for the common course of Nature to change the general appearance of the surface, without causing interruption, we might, without due investigation, almost persuade ourselves that the physical features and conditions of the globe possess an unchangeable character. Indeed, the general phenomena of Nature, which are daily before our eyes, are often those which are considered the least attentively. Continents are changing their physical aspects and configurations—emerging and submerging from the level of the ocean, and moving in masses unobserved by the millions of animated beings who have their existence on them. Generation after generation disappear, while others are taking their places, and so gradually and imperceptibly are these effected, that without reflecting a little, and comparing the past with the present, we almost look at things as if they had been always in the same state. So familiar and reconciled we become to the altered condition, during the fleeting moments of our mortal existence, that the past is soon forgotten. Man, who is linked to these renovating laws of Nature, often forgets that, although he may be moving to-day as a monarch, in a very short period returns whence he came into the primary elements."—The surface of our globe is not the result of chance, or of any imaginable fortuitous circumstances, but the production of a season; it has its beginning and ending, like animated Nature." The inhabitants of the north live on the consolidated debris of the southern hemisphere; the south appears to be the spring of the terrestrial sphere, the equator its summer, the northern hemisphere its autumn, and the North Pole its final dissolution. Mr. Hopkins thus places geology and magnetism in quite a new light, and the manner in which he elucidates the subject will not only be the means of guiding mining operations, but elevate the geological science from the mere study of fossil shells—the petty subdivision of species and stratification, &c., to that of the sublime in magnitude, as well as utility. An eminent philosopher has long expressed his opinion, that this electro-magnetic dynamics will prove to be the *vera causa* of the Newtonian philosophy. It instructs us, that we are placed in a part of a scheme—not a fixed but a progressive one—every way incomprehensible—incomprehensible in a measure equally with respect to what has been, what now is, and what shall be hereafter.

The mist which has so long enveloped the geological science appears to be gradually clearing away, and we look forward to see the science regarded as it ought to be, a source of intellectual recreation, capable of being enjoyed by all; freed from those thousand useless appendages of imaginary minute sub-divisions of species and unpronounceable names, and really adding to the practical aid and advantages of our fellow-creatures.

It is much to be regretted that our eminent geologists should continue to waste so much of their valuable time in discussing on trifles, and not boldly enter into the physics of geology. Such an immense accumulation of isolated facts loose their value, and are liable to be buried in oblivion if they are not linked together in a scientific manner, according to the established laws of physics. It is not the collector of fossils, or curious minerals, who can give the character of a country, its subterranean structure and operation, and guide the miner in his toil, and theorize on the problematic causes from which it originated; but the man who has traced the connection of its parts in every part of the world under variable circumstances, and from an eminence surveyed its outline and marked its features. And he who, in the general pursuit of knowledge has cultivated that spirit of generalization, which alone enables him to perceive the relations of different phenomena, will be best able to determine the character and influence of the immutable laws by which we are governed. How much more satisfactory and consistent with what we daily observe in the works of Nature, is it to regard these grand operations which are going on on the surface, as the regular and necessary effects of terrestrial magnetism—i. e., the existing polar power—that to suppose them as resulting from a series of assumed convulsions and catastrophes, regulated by no laws, and reducible to no fixed principles.

[To be continued in next week's *Mining Journal*.]

AMERICAN LOCOMOTIVE ENGINES.—The *American Railroad Journal* gives a list of 16 establishments in the United States, engaged in the manufacture of locomotive engines; and remarks that the Americans now send engines to Canada, to Cuba, and to Europe, and import none. It seems that the first locomotive manufactured in America, was an experimental one of moderate size, made in 1830, by Mr. Peter Cooper, of New York, and that the first one introduced into New England, was built by George Stephenson, at Newcastle-upon-Tyne, and imported by the Boston and Worcester Railway Company, for the purpose of running their first trains to Newton, in the year 1834. It is added that, "at Boston this specimen of the greatest of mechanical contrivances, excited immense curiosity on its arrival among all classes of men interested in the progress of the mechanical arts in the country. An English engine-driver took charge of the iron horse, and displayed its working capacity, with the most lively satisfaction, to a wondering and admiring crowd."

RAILWAY SPECULATION.—Mr. M. G. White petitioned the Insolvent Debtors' Court, on Tuesday last, under the Protection Act, and was unopposed. In answer to questions from the Commissioner, the insolvent said he was a retired officer from the East India Company's service. He came home after 20 years' service with 2000*l.* which, during the speculation mania of 1845, he invested in shares, and had lost the whole. He had to petition this court on account of liabilities incurred as a provisional committee. Had a pension of 270<i

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A BRIDGE, of 150 span, for a double track railway, broad gauge—Price £3000.

A BRIDGE, of 100 feet span, same dimensions—Price £1000.

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Apply to Mr. S. MOULTON, Patentee, Bradford, Wilts, or to Mr. Howard Jacobson, Suffolk-lane, Thames-street, London.

CUNNINGHAM AND CARTER'S NEW SYSTEM OF RAILWAY PROPULSION.—Railway Directors, Engineers, and the public generally, are invited to examine this system, which may be VIEWED on Mondays, Wednesdays, and Saturdays, from half past Eleven to Three o'clock, at Ingraham's Manufactory, 29, CITY-ROAD, near Finsbury-square.

The following is an estimate of the daily expense of working a double line of 50 miles long, during a period of 10 hours, with trains starting from each terminus every half hour—six trains always running on the line:—

Coals for five stationary engines, of 100-horse power each, at 5 lbs. per horse-power per hour each (say, 11 tons, at 14s. per ton) £7 14 0

Wages—Enginemen with relief, 10 at 6s. £3 0 0

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" Cleaners ditto 10 at 2s. 6d. 1 5 0

" Drivers ditto 12 at 5s. 3 0 0

" Guards ditto 12 at 5s. 3 0 0

Twenty men stationed on the line, 3s. 3 0 0

Repairs of engines, with depreciation, &c., at £300 per annum, each × 5=1000.

per annum—daily proportion 2 15 0

Contingencies 4 6 0

Total £30 0 0

Forty trains, at 15s. per train—£30, being a fraction over 3d. per train per mile, independent of a saving of one-third of the present expense in the maintenance of way.

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Apply to Thomas Cradock and Co. engineers, 36 and 38, Broad-street, Birmingham, where engines of the above principle may be seen at work.

Also ON SALE, THREE 4-horse HIGH-PRESSURE ENGINES, simply arranged, and well got up.—Price £12 per horse-power.

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whereby the IRON is completely FREED from the IMPURITIES CONTRACTED in the BLAST-FURNACE, and, by judicious mixtures, rendered applicable to every kind of manufacture. Heretofore, the metal usually sold in the market has been produced from the worst pigs, scrap, and refuse of some particular blast-furnace, or set of furnaces, without any mixture, or any regard to quality, or the purpose for which it might be required. The PATENT METAL is PREPARED ON SYSTEM, and TO ORDER, for any of the following purposes:—

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